PHILOSOPHY

THE JOURNAL OF THE BRITISH INSTITUTE OF PHILOSOPHY

VOL. X. No. 38. APRIL 1935

THE PRESENT NEED OF A PHILOSOPHY

(LETTERS TO THE EDITOR)

MY DEAR EDITOR,

I had hoped that others would continue the very interesting discussion to which Sir Herbert Samuel's letter to you in the April number of last year gave rise. But as no one has done so in the January number, rather than let it drop, I venture to send you a few notes partly in agreement with what Sir Herbert has urged upon philosophers in view of present circumstances, partly in defence of what seem to him and some others, who have written to you, the abstractness and remoteness of their discussions and the unnecessary technicality of their language.

I think that we should all agree that philosophy has something to do in the world. Like the arts and sciences it has a mission, and one which, in a generation like the present, rightly described by Sir Herbert as "dissatisfied, anxious, apprehensive," it is specially incumbent on it to lay to heart. It shares with literature and science the responsibility of doing what it can to remove the source of its dissatisfaction and to allay its anxieties and apprehensions. We ought, I think, further to agree that in its terminology it should approximate to literature rather than to science in the avoidance of technical language—not because it is less concerned than science with the accurate use of words, but because the objects and experiences with which it deals are the common property of every man, and it is not so much its function to point to new ones as to penetrate more deeply into the meaning and significance of the old ones.

I think we should still further agree with Sir Herbert (going deeper) that the interest has recently tended to shift from the problem of the nature and limits of knowledge to that of the nature of reality —not because the former is unimportant, but because the study of

knowledge, apart from that of reality, is like the study of the shadow apart from the substance. Finally, we should agree with what he says at the end of his letter about the advantage of taking our stand upon some comprehensive, now generally recognized, feature of reality, and that we might be content with him to accept as such the idea of evolution or progress, whether it shows itself unconsciously in the life of nature or consciously in the life of man.

Doubt begins only when it appears to be suggested that, this idea once accepted, we are rid of all philosophical abstraction and have little left to do than the comparatively easy work of applying it to practice. It has, on the contrary, appeared to some of your correspondents that this idea may itself, as commonly used, be one of extreme abstractness, and that, the moment we begin to think about it, it is seen to raise problems of great difficulty. To mention only some of them: Accepting the distinction between unconscious and conscious evolution, how are we to conceive the relation between the two? It has been a common mistake (it is said to have been that of nineteenth-century philosophers) to lay the emphasis on the unconscious side of evolution even in human affairs, and to rely on what Mr. H. G. Wells somewhere calls "the mechanical benevolence latent in things" for the achievement of progress. Granting that the Great War has blown this superstition to the winds, and that we have come to see that evolution, scientific, economic or other, even with "rationalization" thrown in, heads straight for disaster, unless guided by some conscious idea of what Mr. Collingwood calls "the ultimate end," there is still the question of what that end is to be. Granted that here also our eyes have been opened and we see the vanity of wealth, power, territory, even the spread of material well-being, when taken as ends in themselves, and that we should be agreed that the only life worth living, whether for nations or individuals, is one, as Lord Listowel expresses it, "resplendent with scientific truth, with religious vision, with moral and artistic beauty," there still remains the problem, raised by Sir Herbert Samuel himself in an acute form, as to whether the values indicated in this summary are merely "human inventions," "fictional abstractions" for which we have no right to claim that they constitute what Mr. Collingwood again calls "the inward essence of things." Granted finally that we are agreed, among others with Professor Whitehead (who is quoted both by Sir Herbert and Mr. Collingwood as an authority), in rejecting the Relativism which regards them as merely emotional in origin and temporary and local in validity, and in holding that they are of universal and absolute validity, there is still the question of the degree in which they are realizable under temporal conditions. It is a very old doctrine that man's life as a history in time is doomed in the end to failure of complete achievement, and therefore of

complete satisfaction, and that his finitude throws him forward to the idea of a timeless reality in union with which alone, whether in this world or in another, his heart can find satisfaction, its anxieties and apprehensions be laid to rest. Recently this doctrine has tended to sink into the background. Modernism has been defined as the effort to take time seriously. But already some are beginning to suspect that it is possible to take time too seriously, to the exclusion of the complementary idea of the timeless as the "frame of reference" within which the temporal appears as only one phase of it. "It is a common failing," writes Dean Inge, "both of realists and idealists that they do not take *timelessness* seriously enough."

All these questions we should surely agree are tremendously important for the highest kind of practice—sometimes when we consider them they seem to be the only important ones. Yet who will deny that they are all also tremendously difficult ones, and that the unfortunate people, who are afflicted with the "disease of thought" and whose calling dooms them to a lifelong wrestle with them, deserve every allowance if their methods seem to us provokingly tentative and slow, sometimes even wholly irrelevant. It is no reply to this plea to say that in all the centuries from Socrates till now these questions would long ago have been answered, if answer were possible along the lines of traditional controversy. I believe with Lord Listowel that the great philosophers in all ages not only have had their answers to them, but have sought to apply them to practice. But their answers were in the language and adapted to the needs of their own time. Each new age speaks in a different language, and all these problems have to be faced anew by each generation, and, as we know to our cost, do not become simpler, but on the contrary far more complicated as time goes on and new aspects of truth come into view. It is for this reason that there will always be need of new philosophy, as there is of new science and new literature, to satisfy the mind and heart of its own age. Instead of complaining of the dearth of this at the present moment, I am sometimes amazed both at the amount and the quality of it. If it is difficult to point out "*a* philosophy" which may be recommended to inquirers, this is partly, as Professor Laird has pointed out, because philosophy as a whole would be the poorer if there were only one, partly because speculative philosophy is itself at the present moment in a peculiarly interesting crisis. To speak of this at length would carry me beyond the limits of a letter. It is sufficient to point to the approximation to one another of some of the great historic lines of thought, especially those of realism and idealism, as represented by such writers as Whitehead and Bradley, as an extraordinary and entirely hopeful sign of the times.

I come back therefore to my plea, addressed, Sir, with your per-

mission to the readers of *Philosophy*, for the exercise of a large indulgence to the writers for it, whether professional or unprofessional, even when their speculations and controversies seem only to have a remote bearing on what is commonly regarded as "practice." Philosophy, like heaven, is a house of many mansions, and for my own part (supposing myself to be there) I should welcome to a place in it even the movements and methods with which, from a practical and even a philosophical point of view, I have the least sympathy.

I am, etc.,

J. H. MUIRHEAD.

ROTHERFIELD.

MY DEAR EDITOR,

I have been following with interest the letters appearing in your Journal on the "Present Need of a Philosophy." This appears to have been discussed largely from the point of view of determining the present task of philosophy. If philosophy has any immediate service to render in these days, apart from that of giving satisfaction to the mind of the man who attempts to frame the philosophy, it must be to one of two classes, (1) those who are concerned with the practical problems of so altering the conditions of life as to ensure to all the necessities of physical well-being, (2) those who are primarily concerned with attempting to correlate the more recent conclusions of biology, psychology, sociology, and the physical sciences, giving order to their claims, and placing them in a perspective of sufficient accuracy to provide a reliable and healthy outlook. This group includes the numerous camp-followers of the philosophies, and those who, like teachers, have the responsibility of guiding younger minds.

I believe the contribution which philosophy can make to the first group is remote and indirect. But it can aid the second group directly and immediately. In order to do so it must face some of the problems with which this group is most vitally concerned. As a member of this group I am taking the liberty of writing you in order to suggest some of these problems, and to request that, if possible, some of them may be discussed in the pages of your Journal. The problems raised are concerned less with the conclusions of modern sciences than with the determination of the exact spheres within which those conclusions may be held to be valid, and they are created largely by a consideration of the various methods which the sciences adopt. They are, therefore, concerned more directly with questions of epistemology than of metaphysics proper.

I suggest a few of these problems:

(1) It appears to be generally assumed that one of the chief tasks

of philosophy at the present time is to unify the conclusions arrived at by the various sciences, so as to present one harmonious world-view, free from inconsistencies and self-contradictions. What grounds have we for assuming this? Considering the wide variety of methods which are adopted by the various branches of philosophy and science, and the wide variety of terms in which they seek to express their conclusions, is it reasonable to believe that we can unite them in any single statement without doing violence to the exact meaning of the terms we are trying to unite, and so spoiling the value of our effort? May it not rather be the task of philosophy to delimit more exactly the spheres within which the conclusions of any particular branch of study may be held to be valid, and resolve their conflicting claims, not by denying that they conflict, but by preventing their encroachment on territory in which they can make no claim to speak with authority? The present rather chaotic condition of our thought appears to me to be directly due to our failure to determine more exactly the sphere within which any particular set of conclusions may be held to be valid, and only indirectly to our failure to unify those conclusions, for I do not see how the latter is possible until the former has been done.

(2) Is the character of the conclusions which science comes to in its study of natural phenomena determined beforehand by the method of inquiry which it adopts, and the terms in which it chooses to express them? The physical sciences adopt a method of study based on calculation and measurement, a method found in its most perfect form in the study of pure mathematics. The adoption of this method necessarily limits their inquiry to the field of objects which are susceptible of treatment by this method, which are measurable or calculable. Science will necessarily conclude that nature is quantitative in character, and works according to laws which can be mathematically formulated, for because of the method it adopts it can reach no other conclusion. This raises two questions, (i) Although science is restricted to the study of material susceptible to treatment by methods of calculation and measurement, it does not follow that these objects can be exhaustively described in the terms which science uses. The problem is then to determine to what extent the descriptions of science are exhaustive, whether any characteristic of major importance is left out, and, consequently, to what extent the conclusions of science may be relied upon. (ii) Some modern scientists are now assuring us that science cannot explain everything, but leaves room for religion. But is not this a conclusion which might have been drawn merely from a study of the method of science, without any consideration of its results? Can there really be any conflict between science and religion unless science moves outside territory marked out for it by its methods? Ultimately these

both boil down to the question of whether or not it is possible to determine the sphere within which scientific conclusions may be held to be valid, and the weight which we should attach to them, by a study of the methods of science alone, independent of a knowledge of the particular conclusions which science has developed.

(3) The biological sciences are making clear to us the non-rational inheritance which underlies man's development of rational thought, and still permeates it to a considerable extent, even when man is not conscious of the fact that it does so. The sociological sciences are building up a picture of the practical problems with which man was most vitally concerned in the earliest stages of his social development. Social psychology is informing us that the forms in which reflective thought first developed were determined by the nature of the concrete objects with which the reflection dealt, and by the practical purposes which these concrete objects must be made to serve—that is, that the forms of thought were adapted to the nature of concrete objects to the limited extent necessary in order to achieve certain practical results. Genetic psychology assures us that in the mind of the child a similar course of development is followed, that the forms of thought which develop in the mind of a child are determined by the fact that they must be applicable to the concrete objects with which a child is first concerned, but that they correspond to this reality, not completely, but only enough to make it possible for the child to satisfy inherited tendencies to action. This makes it reasonable to suppose that if a child could be brought up in an environment which lacked the concreteness of ours, or if its inherited tendencies could be altered, the forms in which it thought might also differ from those natural to us. Apparently the fundamental forms of our thought remain the same throughout life, however complex a superstructure we may build on them, so that when, as adults, we attempt to frame an interpretation of the mental and physical worlds with which we have to deal, we inevitably do so in forms of thought developed through their application to concrete facts to the limited extent necessary to meet practical needs. This gives little reason to suppose that our thought is capable of encompassing reality truly, but only in a degree sufficient, directly or indirectly, immediately or remotely, to be of practical value. Such a conclusion would have far-reaching results for philosophy.

Take a particular example of this problem. In our philosophies we are inclined to accept uncritically the bifurcation of reality given us by thought, as, for instance, into material and spiritual, and often to make it, consciously or unconsciously, the basis of calculations as to the ultimate nature of all reality. But the habit of bifurcating reality apparently had its origin in the child's habit of distinguishing certain aspects of its concrete environment as pleasant

or unpleasant, warm or cold, self or not-self, according as they met certain needs or satisfied certain desires. That is, the habit of mental bifurcation was pre-conditioned by certain needs, and arose out of the application of thought to its environment to the limited extent necessary to satisfy those needs. It would, therefore, seem to be perfectly legitimate for us to use this habit of bifurcating reality in developing a system of thought governed by some purpose, but is it legitimate for us to use this form of thought and develop on the basis of it a system of thought which claims to give an impersonal description of reality, in the sense that it is based directly on facts, and not coloured by any sort of personal bias?

Are we to infer, as some modern scientists are suggesting, that our knowledge of reality is like a map which we develop, indicating certain features only of reality, varying in its nature according to the purpose it is intended to serve, as maps of England would differ if intended for motor traffic, railway traffic, or for a geological survey? Is our whole system of knowledge, then, organized subconsciously for practical purposes, in order to satisfy, whether immediately or remotely, certain pre-existing needs? If so, it would appear that the next great task of philosophy is that of reclassifying the various branches of philosophic and scientific study in terms of the purposes they are intended to serve, of reorganizing the whole field of human inquiry in terms, not of its results, but of its origins. It will be its task, not to unify results, but to co-ordinate methods, perhaps into one organic whole, by assigning a distinct field and a distinct function to each.

For many of us these are serious problems. And in any case a consideration of them might lead to a valuable house-cleaning of philosophic thought. If it is possible to have them discussed in your Journal, I should be very grateful.

I hope that I have not taken your time unnecessarily. Please excuse me if this should prove to be so.

Sincerely,
W. S. Taylor.

Indore Christian College,
India.

January 20, 1935.

My dear Sir,

The address by Sir Herbert Samuel at the Annual General Meeting, reported in the current issue of *Philosophy*, is, presumably, intended to summarize and finalize the discussion on the present

need of a philosophy which he opened in his letter to you last April. May I, as a business man interested in philosophy, or, more accurately, a student of philosophy engaged in business, add something to that discussion which does not seem to have been emphasized either by Sir Herbert or by his critics?

Sir Herbert asks that we put aside epistemology, as the ordinary man is beginning to suspect that the philosopher is obsessed by meaningless generalizations; he asks that our great philosophers should create a new philosophy based on the conception of Conscious Evolution.

Mr. Coombes states that philosophy, as conceived by the layman, is too abstract to be intelligible, and too remote from the affairs of everyday life to be practical. Yet he goes on to say that all men of affairs are really philosophers.

May I suggest, in answer both to Sir Herbert Samuel and Mr. Coombes, that the whole trouble lies in the truth of the statement made by Mr. Aldrich in his letter, namely, in the fact that too few men of affairs care about becoming philosophers? Surely our present need is not so much for a new philosophy as for more philosophy.

As Professor Laird says, we do not yet need to cry "Stop thinking about everything except what is urgent." We do not need so much to restrain or direct the thoughts of our great thinkers as to persuade those who are not in the habit of thinking philosophically at all to start thinking philosophically.

"Our great men," I fear, would take far too long to agree as to the exact form and nature of the new philosophy which Mr. Coombes would like presented to the lay reader in simple language. But the institute would indeed be doing a great work if it could persuade more men of affairs to care about becoming philosophers.

Let the Institute be a sort of missionary society on behalf of philosophy, a society for converting men of affairs to philosophical ways of thinking. By promoting the study of all types of philosophy (epistemology included!) it will be giving the men of affairs a philosophic outlook, a philosophic mind; it will be enabling him to do what he almost never seems to be capable of doing now—viewing his affairs, his business, national affairs, world affairs, *sub specie aeternitatis*; it will enable him to withstand the bullyings of the popular press and the persuasive misrepresentation of Governments.

Professor John Macmurray hints that philosophers make poor men of affairs. Is not our solution then to make men of affairs philosophers?—not Pragmatists, or Behaviourists, or Materialists, or Idealists—or "Conscious Evolutionists"; just philosophers, to find each his own philosophy.

Once the philosophizing starts, the philosophy will begin to take form; and a far more healthy product it will be than any artificially put together by a committee of great thinkers, "leaving epistemology in the background," in order that they formulate a philosophy to suit the man of affairs

I am, sir,
Yours faithfully,
H. N. PARSONS.

"COTTESLOWE," SALTERTON ROAD,
EXMOUTH, DEVON.

October 5, 1934.

PRESIDENTIAL ADDRESS

(SUMMARY)

SIR HERBERT SAMUEL gave his Presidential Address to the Members of the Institute at University College on January 22nd. There was a large attendance. He took as his subject "Philosophy, Religion, and Present World Conditions."

The present generation, said Sir Herbert, takes no great satisfaction in the world as it finds it. The Great War, the great depression, the establishment of arbitrary power in several of the countries of Europe, the spirit of violence that has been let loose, all lead the new generation to ask—What kind of world is this into which we have been born? Some among them, without beliefs, without hopes, are ready to accept any creed, however irrational, however destructive, which offers a new and different civilization. In presence of these conditions, where does religion stand, and where stands philosophy?

Looking back over history, it is plain that the chief agent in promoting morality has been religion. But in our age this force has been weakening. There is a growing divorce between religion and daily life. The hold of the creeds upon conduct has been lessening. The chief reason for this change is the new factor of modern science. It is "the conflict between science and religion" which, more than any other one cause, has thrown the modern world into the state of intellectual confusion in which it finds itself. It is vital that there should be a reconciliation between the two.

This reconciliation is not likely to be helped by the new views of physics of which, in this country, Sir Arthur Eddington and Sir James Jeans are the principal exponents. Intended to strengthen our faith in religion, those views seem more likely, if accepted, merely to weaken our faith in science. The suggested Principle of Uncertainty at the heart of nature is not accepted by Einstein, Planck, and Rutherford. Quite recently Sir James Jeans himself, in his Presidential Address to the British Association at Aberdeen, has declared that, whether we take the wave-theory of the structure of the atom or the particle-theory, causation does, after all, apply. "The indeterminism of the particle-picture," he says, "seems to reside in our minds rather than in nature. . . . The wave-picture . . . exhibits a complete determinism." He adds, "Things still change solely as they are compelled, but it no longer seems impossible that part of the compulsion may originate in our own minds." It would

seem to follow that, before there were scientists, the electrons may have behaved differently from now, and if human minds ceased to pay attention to them, they would apparently revert to their former behaviour. We may wonder what was the reaction of the British Association for the Advancement of Science to this new doctrine.

As to Philosophy's own contribution—her influence on the modern world has been lessened by the tendency to use a specialized language, and to engage in discussions that are mainly dialectic or even linguistic. But now, in this country and elsewhere, philosophy is growing more and more self-dependent, vigorous, and original. Both the student and the layman may find in the philosophic writings of to-day a greater degree of actuality and of clarity than for a long time past.

But it must be admitted that, in so far as philosophy has had an effective influence upon the course of recent events, that influence has sometimes been harmful. Particularly has that proved to be so in Germany. The ideas of Fichte, of Hegel, and now of Nietzsche, can be seen to be among the principal causes of the unrest of the modern world.

It is the Hegelian doctrine of the reality and supremacy of the State which is the root of much of the evil of our times. This doctrine surely rests upon a delusion. The State can be nothing other than a collection of men and women who have organized themselves for purposes of joint action. Apart from them, there is nothing; just as the swarm is nothing apart from the bees. It is true that men, like bees, have an innate tendency to co-operate; it is true that if they were not organized in a State they would be different from what they are, and inferior; and it is true that, when occasion requires, they must be ready to make sacrifices of their own individual advantage for the sake of the social advantage. But this does not confer "reality" upon the forms which they may adopt for the purposes of joint action. Still less does it endow the system, which they have themselves created, with an absolute sovereignty entitled to a blind obedience. The notion that the State is an entity "real in its own right" may be seen on examination to be nothing more than an imagination of sophisticated metaphysicians wandering in a vacuum remote from actuality.

In Britain, however, thought has moved upon other lines, and the effect is seen in a different direction of public opinion, a different national policy, and different results to the welfare of the people. Perhaps philosophy, both in this country and elsewhere, may even now be on the eve of furnishing to the world that broad guidance for lack of which it wanders bewildered.

There is ground for believing that this last half-century and the

years immediately ahead of us may be of special significance, because the present age is the first to become conscious of its own evolution. Now, for the first time, there is a race of beings on this planet which is aware, in part at least, of the cosmic process. Evolution there has always been; now, for the first time, there may be Conscious Evolution. If, as we now know is the case, unconscious evolution has enabled animals to be the prototypes of simian man, and simian man of man in civilization, there is no reason why conscious evolution should not raise us, and with vastly accelerated speed, to something as much higher again in the scale of being.

The principle of conscious evolution will naturally take account of three main factors—first, the physical basis of human life, that is the number and the quality of the human beings brought into the world; secondly, their physical environment; thirdly, their environment of ideas.

We see, taking their places in an ordered scheme, the new science of eugenics, the work of the educationalists, industrial organization, politics both national and international—all the branches of sociology. We see ethics entering in; trying to find what things are good, what aims are worth pursuing; teaching that each society exists only to promote the perfection of its members, that each nation should help, not thwart, the efforts of the rest. Ethics sets the goal for politics and economics, for all the vast variety of activities which make up the seething life of the modern world.

Religion may powerfully co-operate. "The paramount virtue of religion," says Matthew Arnold, "is that it has *lighted up* morality; that it has supplied the emotion and inspiration needful for carrying the sage along the narrow way perfectly, for carrying the ordinary man along it at all."

We must be on our guard against putting too high the evils and the dangers, real as they are, of our times. The countries where a militarist philosophy is supreme are still a small minority in the civilized world. In the economic sphere the average standard of living, taking mankind as a whole, has certainly been higher in our own times than it has ever been in the course of history. We have succeeded in fending off the two great scourges of all earlier ages —famine and plague. We have succeeded in harnessing the forces of nature so effectively that our problem is less the maintenance of production than efficient direction of distribution. If there is violence, let it be remembered that violence is no new thing. If disasters bulk large in our daily reading, let it be remembered that modern means of communication make us aware immediately of every misfortune in every part of the globe. Rightly concentrating our attention especially upon the abnormal in order to effect a cure,

we may be inclined to underestimate the normal. We must see world conditions as a whole.

Those are the lines, perhaps, on which may emerge the guidance for which the new generation is eager. There may yet be revealed the vision without which the people perish. We may hold the faith that Philosophy, together with her sisters Religion and Science, will yet succeed in pointing the paths along which man should move —now for the first time with a consciousness of what he is doing and where he is going. They are paths that shall lead towards a society better than that about us—in which there shall be dignity, as well as activity, in private life, simplicity in manners, beauty in environment, majesty in the State and tranquillity in the world.

GREAT THINKERS

(IV) PLOTINUS

THE VERY REVEREND W. R. INGE, K.C.V.O., F.B.A.

TIMES have changed since Pfleiderer, in 1883, after summing up Neoplatonism in three contemptuous sentences, concludes, "In this convulsed state, entirely destitute of contents, consciousness has disappeared, and with it the very possibility of the religious relation, in favour of an orgiastic tumult of feeling." Had Pfleiderer ever read a word of Plotinus or Proclus? If not, he had many to keep him company among the philosophers of his generation, though to be sure, Hegel, Schopenhauer, and Hartmann realized the importance of the latest era in Greek philosophy. Jowett, in his introductions to Plato, never shows the slightest interest in what Platonism became under the Roman Empire. Edward Caird had certainly read Plotinus; but his lectures upon him in his *Evolution of Theology in the Greek Philosophers*, though highly praised at the time, are even more misleading than the ignorant neglect of writers like Pfleiderer. When he says that the philosophy of Plotinus "involves a negation of the finite or determinate in all its forms"; that "the world of pure intelligence is opposed in the sharpest way to the world of spatial externality and temporal change"; that "he develops to its extremest form the dualism of form and matter"; that in its ascent "spirit divests itself of one element of its life after another," it would be easy to refute every one of these statements from the *Enneads*. There is no "dualism" in Plotinus; his hypostases flow into each other with "nothing between"; "there is nothing Yonder that is not also Here"; "to try to rise above Intelligence (or Spirit, νοῦς) is to fall outside it"; and life in the κόσμος νοητός is not poorer but much richer than the life of sensation and merely "psychic" interests.

It is now generally recognized that Plotinus is one of the greatest names in the history of thought. Vacherot calls the *Enneads* "the vastest, richest, and perhaps the most powerful synthesis in the whole history of philosophy." Thomas Whittaker calls Plotinus "the greatest individual thinker between Aristotle and Descartes"; Drews, "the greatest metaphysician of antiquity." Eucken draws special attention to his influence upon Christian thought—an influence greater, he thinks, than that of any other thinker; and Troeltsch, whom until his death in 1927 I should have ranked as perhaps the deepest philosophical theologian in Europe, urges that his importance

is far from being merely historical. "In my opinion," he writes, "the deeper stress of the scientific and philosophical spirit in modern times has made the blend of Neoplatonism and New Testament Christianity the only possible solution of the problem at the present day, and I do not doubt that the synthesis of Neoplatonism and Christianity will once more be dominant in modern thought." This conviction is leading many Christian apologists back to the study of the Schoolmen. Thomas Aquinas, perhaps, owes as much to the Neoplatonists as he does to Aristotle. This means a return to realism, rationalism, and mysticism. The faith that these three can be combined is the hall-mark of Platonism.

Although Plotinus writes as if he lived in a timeless world, and although there seems to have been a kind of convention not to mention historical events, whether past or present, the Neoplatonists were children of their age, like everyone else. Plotinus was profoundly loyal to the Greek philosophical tradition, and never willingly deserts his master Plato. But the problems of his age were not the problems of classical Greek thought. Philosophy in antiquity had been the centre of liberal education. It was rooted in the civic life of the self-governing town or canton. But this type of polity was now obsolete. Philosophy made no attempt to adapt itself, except by withdrawing altogether from politics and sociology. Under the Stoics it was a protest against political changes; under the Neoplatonists it tried to resist the Christian theocracy. Later revivals of Platonism have had the same character. The Renaissance scholars revolted against medieval theology, the Cambridge Platonists against "Hobbism," modern Platonists against various tendencies of thought which are in different ways anti-Hellenic.

Besides the political changes, we have to notice the prevalent *theocrasia* or fusion of religious cults, the inroads of Oriental worships, the growth of superstition (though Greek thought remained rationalistic), pessimism about the future of society and reverence for antiquity, a far-reaching modification of the older Hellenic and Roman ethics, and an intense individualism in place of the public spirit of earlier periods. The real Greeks and Romans were not far from extinction; the Empire was largely populated by Orientals and Germans, whose traditions were quite different. Literature, art, and culture generally, were already stricken with barrenness, though this was the age of the great jurists. Only religion was full of life, and philosophy, which was now theocratic as it had never been before in Europe. But philosophy was on the whole true to the Hellenic tradition, and the mutual hostility of the rival schools had much abated. Both Plotinus and his predecessors, such as Numenius, tried to find room within Platonism for much which was derived from Aristotle, and for something from the Stoa. Plotinus has

little or nothing to say about Oriental religions. He must have seen a great deal of Christianity at Alexandria and Rome, but like other pagans at the time he probably failed to realize its importance. It was a "barbarous theosophy." (Even Proclus in the fifth century apologizes for believing in angels. "The word is not foreign and peculiar to barbarous theosophy; Plato in the *Cratylus* calls Hermes and Iris angels.") He attacks the half-Christian Gnostics, because they aspired to be philosophers, and, he may have thought, caricatured his own system. Judaism was "a philosophic religion"; but those who so called it were probably thinking of Philo and other Hellenizing Jews.

Neoplatonism had two main objects. On the theoretical side it aimed at providing a genuinely Greek philosophy which should bring to an end the quarrelling of the sects by amalgamating all the best that the "great men of old" had thought and taught. On the practical side it sought to meet the earnest religious needs of the time. How was the soul to return to God? How was the gulf between them to be spanned? How were the benefits which the popular mystery religions offered to confer by sacramental rites to be secured within the limits of Hellenic rationalism? Could a deeply religious mysticism be built on a rationalistic foundation? The philosophical importance of Plotinus resides in his attempts to answer these questions, which, it need not be said, are as fundamental in our day as they were in his. The *Enneads* are the record of the wrestlings of a man of genius with this tremendous problem.

After his death it was impossible to maintain the debate on the same level. Within two generations," says Dodds, "the dialectical tension of opposites which is the nerve of the Plotinian system was threatening to sink into a meaningless affirmation of incompatibles; and 'unification' had ceased to be a living experience or even a living ideal, and had become a pious formula on the lips of professors." With Iamblichus, a new orientation begins. The Plotinian *θεωρία* is changed to *θεουργία*; ritual magic takes the place of contemplation. This was exactly what Plotinus wished to avoid; but in his anxiety to obliterate all hard-and-fast lines across the field of thought, and to depict the ascent of the soul not by "quanta," but by continuous progression, he laid stress on the doctrine of "sympathies" running through the whole of nature, and so left the door open for magic, which it was difficult for a third-century thinker to repudiate entirely. But this perversion destroys the noble rational bases of Plotinian mysticism, and contaminates philosophy with superstitions which belong to the lower levels of religion. The importance of the change was recognized by Olympiodorus, who says that, in contrast with Plotinus and Porphyry, the "priestly school" of Iamblichus, Syrianus, and Proclus put "the hieratic art" before philosophy.

The new religions of salvation were in truth very unlike the old Greek tradition. The eastern faiths, such as Judaism, present us with a world historic, dramatic, and mythical, The real is the historical. On the other side we have a rationalist conception in which the transitory as such is the unreal, and in which it is difficult to account for any real change. This is, of course, one of the most fundamental cleavages in thought, down to our own day. "Thy sons, O Zion," and "Thy sons, O Greece," came together in Catholic Christianity, which gained by doing justice to two entirely different ways of envisaging reality; but the two agree no better than oil and water, and some of the chief theological controversies have no other origin.

Bréhier, whose studies of Plotinus contain some original reflexions, says that from the first century onwards there were small communities of contemplatives, especially in Egypt, who had no sympathy with the sacerdotal cults which became prominent in the same period. The emphasis on contemplation in Plotinus may be traced back to this type of religion. For him, even nature and art are inferior degrees of contemplation. But the thought of Plotinus is firmly rooted in realism. The intelligible, or, as I have preferred to render it, the spiritual (since we can hardly avoid the "intellectualist" suggestion of the word intelligence) is, after all, only the interior face of things. The intelligence enriches, not impoverishes, sensation. "Sensations are obscure thoughts, and intelligible (or spiritual) thoughts are clear sensations." Thus he can refine and spiritualize even the sensuous.

This fluidity of concepts would hardly have satisfied the geometer Plato. It is so essentially bound up with degrees of value that it would have puzzled Sir James Jeans's mathematical God. Scholastic philosophy is often accused of arguing from rigid concepts which do not agree with our experience of reality. Plotinus, for whom, in the world Yonder, all things penetrate and flow into each other, escapes this criticism. Modern thinkers are more likely to complain that in this system nothing is more fluid than human personality. "There is no point," he says himself, "where a man may fix limits and say, so far it is myself." In the highest stages of the spiritual life the feeling of separate individuality disappears; there is no more any memory of self. We possess ourselves, but for that very reason we do not think about ourselves. All our activity is directed upon the stage next above us. We become that object; we offer ourselves to it as a 'matter' which it informs; we are only potentially ourselves." It follows the self-consciousness, which in some modern philosophies is the impregnable citadel of thought, is not only unessential, but is a sign of imperfection. Even in our mechanical work, he observes, we often do best when we are not thinking about the motions of our hands. Whether Plotinus can reconcile this picture of

life in the spiritual world with his assertion that 'our individuality must be preserved," is uncertain. He tries to envisage a state of being in which living creatures are distinct but not separate. Love and sympathy make them all one; but his world Yonder is certainly not "an indifferentiated jelly."

Bréhier has revived the debate, which seemed to have been almost closed, whether any genuine Oriental influence can be found in Plotinus. The majority of recent writers have decided that Neoplatonism is wholly within the Greek tradition. But this throws back the problem upon Plato, whom Livingstone has declared not to be a typical Greek, and of whom Whittaker has said that he diverged much further from Hellenic ideals than Plotinus. "Plato's ideal society is in contact on one side with the pre-Hellenic East"—he is thinking especially of Egypt—"and on the other side with the Orientalized Europe of the Middle Ages." Plato's schemes of political and social reform did not interest Plotinus; and we can hardly narrow genuine Hellenism by excluding Plato, or the Orphics. Bréhier, however, regards rationalism alone as Greek; the mystical ideal of the complete unification of being in the Godhead, guaranteed by intuitive evidence, he traces to Eastern influence. But mysticism does not need to borrow from exotic sources; it is personal religion in its innermost essence; it springs into being whenever and wherever the human spirit is driven back from external activities to contemplate its own nature and its relations with the eternal.

It is true that problems of personality, and of self-consciousness, press upon Plotinus with a weight unknown to classical Greek philosophy. The method of rationalism is changed when the reasoning subject changes with the objects which it contemplates. Mysticism can thus be superimposed upon rationalism without destroying the rationalist foundation. In this way, though Plotinus is far enough from the post-Kantian idealism, in which the mind creates a world internal to itself, it is true that he is one of the founders of modern epistemology. The reluctance of Porphyry to admit that the spiritual world is not external to spirit (*σὐκ ἔξω νοῦ τὰ νοητά*) shows that the teaching of Plotinus was still unfamiliar and difficult to students of philosophy. It is also true that, especially in the sixth *Enneads*, he insists on the ultimate identity of our selves with the universal Being, and speaks of separate individuality as an illusion from which we should free ourselves. This, Bréhier argues, is Indian and not European philosophy.

Porphyry tells us that Plotinus, before he went to Rome, was desirous of studying the philosophy of Persia and of India. With this object he attached himself to the army which the emperor Gordian led against Persia. A more unfavourable opportunity of studying the wisdom of the East can hardly be imagined, since

Persia was the enemy, and Gordian never contemplated carrying the Roman arms to the Indus. The sacramental cult of Mithra could have had no attractions for Plotinus, who was no churchgoer, and shocked his friends by saying to them, It is for the gods to come to me, not for me to go to them." "Das Denken ist auch Gottesdienst," as Hegel said to his housekeeper. "The universal Power," he says, "is within you. It has not to come and so be present with you; it is you that have turned away from it. It is there all the time; you are not far from it, but you have turned your face the other way." But may he not have been attracted by Indian thought, which was fairly well known at Alexandria? The Greeks had long been interested in the gymnosophists, who seemed to have solved the problem of invulnerability. Even Socrates, according to Aristoxenus of Tarentum, cited by Eusebius, had an argument with an Indian at Athens.

To estimate the resemblances between Neoplatonism and Indian thought would require much more knowledge of the sacred books of the East than I possess. But I think there is one decisive and all-important divergence. In Asiatic thought, all between the illusory world of sensation and the undifferentiated Absolute seems to drop out. We start from the infra-real and we end with the supra-real. Reality thus becomes empty of contents, and salvation is the attainment of a condition not unlike dreamless sleep. But this is not at all the tendency of Neoplatonism. The heaven of Plotinus is throbbing with life and rich with colour. The hypostasis of νοῦς appears under the triple aspect of a world of ideas, as in Plato, the origin of forms as in Aristotle, and a system of monads united by sympathy as in the Stoics. This, and not the ineffable One, of whom nothing can be predicated, is the real world of Neoplatonism. There is nothing, I think, to correspond with it in Indian thought, and the difference seems to me fundamental. I agree with Bréhier that "the theory of the intelligence is the affirmation of the reality of rational, moral, and aesthetic values, which dominate the sensible world and the judgment which we form about it." But he finds in Plotinus a fusion of this Platonic conception of the intelligence, as realizing itself in a system of articulated notions, with that of a spiritual attitude, out of relation with scientific knowledge. The attempt to combine mystical religion with philosophical realism is at the centre of Plotinus's system; I am not aware of anything much like it in Indian speculation. We might possibly say that the relation of Plotinus to Greek rationalism is not very unlike that of Spinoza to Descartes.

One difficulty which modern critics find in Plotinus is that the creation of the universe is not satisfactorily explained. Plotinus must have been aware that "it had to be" is no explanation, and that the alleged necessity of the supreme principle "as it were over-

flowing," and so creating down to the lowest grades of possible existence does not quite carry conviction. But I do not know of any other philosophy which has really accounted for the universe; its existence must, I think, be accepted as a brute fact, or a starting-point. But besides this the category of *procession* was in antiquity what the inverse process of evolution has been to us, the universal framework into which all diversities are fitted. There was the same tendency to make it the fundamental law; and we, who have seen the misuse of the conception of evolution in our own day, can make allowance for a similar unthinking acceptance of procession or emanation in antiquity. For a Greek, the explanation of a thing must always be sought in what is above it, not in what is below. By their fruits, not by their roots, we shall know the value of and meaning of things. The "nature" of "matter" (which in Plotinus is not "material"—here one is tempted to find a resemblance with the most modern physics) is to be the recipient of forms; it is nothing in itself, but is the potentiality of all things. At every stage in the ascent there is an inferior element which aspires or strives to be taken up into the superior; there is "divine matter" even in the intelligible. There is thus a double movement, a way down and a way up, running through the whole of nature. The ascent of the hill of the Lord is carefully and lovingly described; the descent is—well, what had to be if there was to be a world at all.

The question whether it would have been better for the soul to have remained "Yonder" is a great problem for Platonists. Plotinus, for once, summons up courage to say that the divine Plato contradicts himself. The *Phaedrus* and the *Timaeus* "do not say the same thing." Plotinus cannot be acquitted of vacillation; but on the whole he distinguishes between the natural and necessary act by which the soul animates the body, and the voluntary act by which it entangles itself with "the things that are Here." He follows the *Timaeus* rather than the *Phaedrus* with the figure of the soul moulting its wing-feathers.

A kindred problem was whether the soul ever "descends entire." Must we not say that part of it remains impeccable in the world Yonder to which it belongs? The question may seem unreal; but it is important in view of the Plotinian Doctrine that we can only know what is akin to ourselves. If the soul were wholly immersed in "matter," how could it escape, since in this philosophy there is no divine rescuer, no Word made flesh? The Christian mystics of the Middle Ages had the same doctrine. At the centre of the soul there is a something, which they called the Spark, or Synteresis, which "can never consent to sin." This Spark, according to some of them, is super-personal; it is, says Eckhart, "so akin to God that it is one with God, and not merely united to Him." It is, says Hermann

of Fritslar, "a power or faculty in the soul, wherein God works immediately, without means and without intermission." So Plotinus says, "Sin is always human, being mixed with something contrary to itself." The later Neoplatonists, with whom the Plotinian mysticism had partially lost contact with spiritual experience, all, with the exception of Theodorus and Damascius, forsake Plotinus here. "If the will sins," asks Iamblichus, "how can the soul be sinless?" The soul, according to him, descends entire. Proclus, more decidedly than Plotinus, repudiates the notion that there is any moral lapse in the soul's incarnation; it is a necessary movement; or if a motive must be assigned, "the soul comes down because it wishes to imitate the providence of the gods." All souls must trace the circle again and again.

The problem of the status of Time in reality has always been a crux which tends to divide philosophies into two classes. For a Platonist, the transitory is, as such, the unreal, and therefore, it would seem, there can be no *devenir* in reality. And yet, "things that are born are nothing without their future." They yearn to continue in existence, because perpetuity is the symbol or copy of the permanence of eternity, and they also press upwards, whether consciously or not, to reach the next stage above that in which they now are. "Time is the activity of an eternal soul, not turned towards itself nor within itself, but exercised in creation and generation." "It is the span of life proper to the soul." This is quite intelligible; Time is the moving image of eternity. But what the modern thinker wants to know is whether happenings in time in any way determine the condition of real beings in the eternal world. A man, it appears, may lose his soul, but not a real soul, not the soul that would have been his if he had not been a bad man. Is the life of heaven, as we may call it, unaffected by anything that takes place in time or history? The very beautiful description of the happy life of spirits Yonder gives no hint of a negative answer. "A pleasant life is theirs in heaven; they have the truth for mother, nurse, real being, and nutriment. They see all things, not the things that are born and die, but those which have real being; and they see themselves in others. For them all things are transparent, and there is nothing dark or impenetrable, but everyone is manifest to everyone internally; for light is manifest to light. For everyone has all things in himself and sees all things in another; so that all things are everywhere and all is all and each is all, and the glory is infinite. Each of them is great, since Yonder the small also is great. In heaven the sun is all the stars, and each again and all are the sun. There pure movement reigns, for that which produces the movement, not being a stranger to it, does not trouble it. Rest is also perfect, because no agitation mingles with it." There is nowhere any hint of progress, except

the *introrsum ascendere* of the soul. Nor, it would seem, can there be anything like a single purpose in the life of the universe, which is being achieved in the course of ages. Innumerable finite purposes there may be and are; but the great soul of the world, the spiritual ocean in which sensible reality is bathed, revolves in the circle of its own perfection, giving birth to endless cycles in the world of becoming, which reflect it but do not alter it in any way. The universe is perpetual, as its creator is eternal. We can understand how unwelcome to every Platonist is the astronomers' doctrine that the whole world is running down irreversibly like a clock. "Your clock must have been wound up once," he will say to the men of science, "and it will be wound up again. You say that that is impossible; but it is not more impossible than the last winding up, of which you can only say, with Eddington, that it must have 'started with a bang.' " As for history, I fear the consistent Neoplatonist must agree with Bosanquet that it does not matter very much. The serene indifference of Plotinus to the calamities which were destroying civilization strikes a chill in the twentieth-century European. We cannot rise to this philosophic calm, and perhaps we would not if we could.

The Greeks had no symbol for zero, and could not anticipate Scotus Erigena's dictum that the Godhead, or Absolute, *non immerito Nihilum vocatur*. They called the Absolute the One, and also the Good. The mystical trance is evidence that there is something in us which can bring us, on very rare occasions, into contact with the primal source of all reality; and the fact that even in the spiritual world there is a unity in duality of subject and object, the two being reciprocally interdependent, and in complete harmony, but not completely fused, points to an absolute unity from which both spring. The argument, as usual in this system, has two aspects, one metaphysical, the other experiential. In spite of the beauty of the language in which Plotinus, like other mystics, tries to express what human speech cannot describe, we must not exaggerate the importance which this culminating revelation has in his system. The centre of the philosophy is that life in the "intelligible world" which we can enjoy with the help of a faculty "which all possess, but only a few use." "The vision is for him who will see it"; but the path thereto is long and arduous, traversing first the field of the civic virtues, which Plotinus would not have us neglect, then the discipline of purification, then the contemplation which leads to illumination. The "unitive life" lies beyond, a goal hardly to be attained while we are on earth. Nevertheless, it is towards this consummation that we must look. "We are like a choir of singers who stand round the conductor, but do not always sing in time because their attention is distracted to some external object. When they look at the conductor

they sing well and are really with him. Then we attain the end of our existence and our repose. We no longer sing out of tune, but form in very truth a divine chorus round the One."

Those who have accused Neoplatonism of "peeling the onion" —of straining at infinity and grasping only zero—must remember the importance which is given to *Love* in this philosophy. It is the "spirit of love" which attains, and love, as we all know, neither effaces our own personality nor desires to clasp a shadow. That the object of love is in a sense our own transfigured superselves is true; but we may refer to the passage already quoted about beatitude as the perfect attainment of sympathy. Plotinus's God, we are told, is not a personal object. No, but He is a super-personal subject. Spinoza and some of the mystics have felt the same and been content.

"The fire still burns on the altars of Plotinus." He is the supreme prophet and teacher of one very important branch of religious philosophy. God is spirit. God is knowable. Earth is the shadow of heaven, but "the shadow is a true shadow, as the substance is a true substance." Three classes of men are beckoned to the great quest—the philosopher, the lover, and the servant of the Muses. Truth, Goodness, and Beauty are the ultimate values which are also the supreme realities. To live resolutely in the Whole, the Good, and the Beautiful, is, as Goethe says, the whole duty of man.

REASON AND THE PROBLEM OF SUFFERING

Professor C. A. CAMPBELL.

The problem of suffering is essentially a problem in philosophical theology. For many philosophical systems the phenomena of suffering set no special problem at all. The most influential philosophies of the present age, for example, have almost nothing to say on the subject—and there is no reason why, on their metaphysical principles, they should say anything. The problem is a relevant one only for those philosophies which claim to be in at least general accord with the "religious interpretation of the universe." But for them it is crucial. Given a *Weltanschauung* like that of Absolute Idealism, for which the ultimate principle from which all things derive their being is an Infinite and Perfect Spirit, and it becomes at once a clear obligation to offer some explanation of how we are to reconcile the Goodness of God with the existence in the world of so much suffering which is *prima facie* just bad. As we all know, the problem is an extraordinarily hard one to solve. But, inasmuch as the religious interpretation of the universe demands its solution as a condition of its own possibility, its importance is proportionate to its difficulty.

In what follows I shall be playing, almost throughout, the not very congenial part of destructive critic. Actually I do hold, and am also anxious to recommend, a certain positive doctrine. But there are some occasions, and this seems to me to be one of them, upon which the almost indispensable preliminary to recommending effectively a positive point of view is to draw attention to the gravity of the difficulties which beset any other. Why I regard this as such an occasion will probably be appreciated when I explain that the positive point of view which I favour is that associated with the name of Rudolf Otto. Otto's solution, as is well known, involves appeal to the "supra-rational" character of the Divine Perfection: and the demand for a "rational" explanation of all things, whether on the earth below or in the heavens above, is so deeply engrained in Occidental habits of thought that those of us who feel obliged, like Otto, to proclaim a definite *ne plus ultra* to the human reason are fully prepared to find our views received with much initial suspicion, and even contempt. We fully expect to be accused of an *ignava ratio*, which flies for refuge to an *asylum ignorantiae*. But our withers remain unwrung. For us, the attempt to interpret the nature of God in conceptual terms exhibits the same kind of "courage" as

would the attempt to express the square root of -1 in a rational number. Be that as it may, the simple fact has got to be reckoned with that there does exist in most quarters a strong—and in many respects, I agree, a healthy—dislike of embracing any kind of supra-rational hypothesis until all rational hypotheses have been tried out and found wanting. And that is why I am preferring in this paper to attempt a work of destruction rather than of construction, to criticize certain rationalistic solutions of the problem of suffering rather than to expound and defend the supra-rationalist solution which finds so much better expression than I could possibly give to it in those pages of *Das Heilige* which contain its author's exegesis of the Book of Job.[1]

Our space is brief, so let us, without further preamble, settle down to our problem. And let us begin by noting that it is not, of course, *all* human suffering which constitutes a problem, even a *prima facie* problem, for the religious interpretation of the universe. We can quite well think of God as manifesting Perfect Goodness in His relations with man, without having to regard Him as a "Universalistic Hedonist" in action—a kind of colossal Jeremy Bentham doling out the greatest possible pleasure to the largest possible number. The present Master of Balliol once protested that far too many people seem to believe not that "man's chief end is to glorify God and enjoy Him for ever," but that "God's chief end is to glorify man and make him enjoy himself for ever." A similar thought was in Dean Inge's mind, I suppose, when he wrote recently that some people pray to God as though he were a kind of benevolent fairy. Needless to say, no serious religious thinker acquiesces in this vulgar identification of the Divine Goodness with indiscriminate pleasure-giving. On the contrary, it is frankly recognized that certain kinds of suffering occasion no perplexities whatever. Thus no one, I imagine, experiences any difficulty in reconciling with God's Perfection the existence of suffering that is *deserved*, and is roughly proportionate to desert. This, we should say, is but justice: and justice is a virtue. It is the existence of so much apparently *unmerited* suffering that engenders our doubts. "How can a just God let such things be?" we ask, confronted by some peculiarly heart-breaking spectacle of this kind. Never to have been stirred to such questioning is, I should say, much more likely to be the mark of an insensitive egoism than of an exalted spirituality. What we have to investigate here is the claim to adequacy of the several

[1] I may perhaps be permitted to add, in order to forestall any suggestion of philosophical eclecticism, that my adoption of a supra-rationalist position in respect of the problem of suffering is only a particular application of the metaphysical principles which I have advocated at length in my *Scepticism and Construction*.

replies which such questioning has evoked from those who are resolute to maintain the fundamental truth of religion.

These replies (so far as known to me) fall roughly into two groups: as might, indeed, be conjectured from the nature of the problem. For, on the face of it, it looks as though we must, if we are to get any kind of solution, maintain one or other of two positions. We must maintain *either* that the suffering which creates our problem is not really, but only in appearance, evil, *or* that God is not in the fullest sense Perfect. What it seems manifestly impossible to hold together is the real evilness of suffering and the absolute Perfection of God. Accordingly, attempted solutions of the problem of suffering tend naturally to take the course either of explaining away the evilness of suffering or of compromising the Perfection of God.

Of these courses the latter is much the simpler, though also, I think, much the least plausible. God's perfection is compromised, not of course by admitting any defect of moral excellence, but by the denial of His Omnipotence. If we are prepared to regard God the Creator in the light of an artificer operating upon a material which is given to Him from without, and which is therefore capable of offering obstruction to the ideal achievement of His purposes, then it is clear that we need find no incompatibility in the existence of much suffering that both seems, and is, evil with the prevailing justice and loving-kindness of God. Evil does exist in the world on this view, but it would not if God could help it. To put it crudely, but not, I think, unfairly, God is doing the very best He can.

But to put it thus crudely is, I think, to become conscious at once of the intensely unsatisfactory character of a solution along these lines. To derogate from God's Majesty and Dominion by the admission of an alien power which can thwart the full realization of the Divine Will is surely to adopt a point of view profoundly repugnant to the religious consciousness. Faith in God, we are wont to believe, bears in its train the "peace that passeth understanding." But is this ineffable tranquillity of the spirit really possible if the God in whom we believe is recognized to be so limited that, for aught we know, He may be prevented by agencies over which He has no control from the carrying out of His beneficent aims? The "peace that passeth understanding" is, surely, the fruit of a deep and steadfast faith that *all* things are in the hands of Perfect and Almighty God. In the absence of this faith it cannot, it seems to me, be long sustained in the soul of any thoughtful person. From many points of view, without doubt, the hypothesis of a Finite God—for that is what the denial of God's Omnipotence amounts to—is an attractive one. But to adopt it is, I think, to do violence to an aspect of the religious consciousness which it is difficult not to believe integral and indispensable.

I think it would be wasted labour to dwell at greater length upon this (as it seems to me) hopeless expedient of surrendering the Divine Omnipotence. I propose to turn at once to the examination of the more interesting and more widely sponsored type of solution which aims at *arguing away the evilness* of suffering. A great number of considerations have been marshalled in this interest, and I shall try to set out, and then criticize, the more important of them as fairly as I can.

The first suggestion with which I wish to deal is one which, if valid, offers us an absolute release from our difficulties. We saw that it is only unmerited suffering that provokes our doubts of the goodness of God. What if there is really *no* human suffering which is unmerited? To maintain this in any literal sense may seem to be, and I think it is, an outrage upon humanity. But it is a suggestion which it is impossible to ignore, for there is a good deal in the utterances of religion which seems to lend it countenance. Moreover, did not one of the most inspiring and influential lay thinkers of a recent generation, Thomas Carlyle, express himself constantly in language which implies agreement with this attitude? The point of view is, I suppose, that we are all in the last resort such miserable sinners, such "vile bodies," even the best of us, that any happiness or even amelioration of suffering which God may be pleased to bestow upon us ought to be regarded as an act of grace and mercy, not as something which our merits entitle us to claim from God as our right in the name of justice. If we can maintain this attitude, if we can believe that we deserve the worst that can possibly befall us, our complaints will be changed to thankfulness for even the most exiguous allotment of happiness. In Carlyle's famous words, "Fancy that thou deservest to be hanged (as is most likely), thou wilt feel it happiness to be only shot: fancy that thou deservest to be hanged in a hair-halter, it will be a luxury to die in hemp!"

Now I am far from denying that there is latent here a profound religious truth. But it is one which may very easily pass over into a profane and vulgar error, and it does so pass whenever it takes the form (as with Carlyle's words) of implying that all human suffering is, in the ordinary sense, *deserved*. In the presence of, and by contrast with, God's ineffable Holiness, the religious man is conscious of his own unutterable unworthiness, that before God he is but "dust and ashes." That is, I think, no more than the bare truth. But it seems to me that Rudolf Otto is incontrovertibly in the right in insisting that the religious man has in such experience passed to a plane clean beyond that in which *moral* categories, and the conceptions of crime and punishment, are relevant. In such experience the religious man is not, or certainly need not be, proclaiming his consciousness of moral wickedness. What he is proclaiming is his sense

of unspeakable insignificance before the *mysterium tremendum et fascinans* of Deity. To suppose that the religious man's self-abasement in the presence of the Holy springs from the felt contrast of his own moral depravity with God's moral Perfection is, I think, utterly to mis-read, and profoundly to diminish, the significance of authentic religious experience. God-consciousness may, indeed *must*, I should say, in so far as it is deep and pure, induce in the subject a frame of mind which accepts without railing whatever adversity may be in store for him. That is a matter to which we may return. But my present point is that it is emphatically not because God-consciousness makes us aware that our sinfulness is so heinous that we *deserve* the worst that can befall us, as due *punishment* for our misdeeds. To believe that would surely be to make complete nonsense of morality. It would stultify all the standards by which we appraise, roughly though it be, the relative worth of persons. If everyone deserves the worst, nobody can be any better nor any worse than anybody else.

If a doubt should still remain in anyone's mind as to the actual existence of suffering that it is hopeless to regard as deserved, I do not know how it can withstand even the briefest reflection upon the agonies which little children may be called upon to bear. Little children are not miserable sinners. To refuse to admit that at least much of their suffering is wholly unmerited would be, not to put too fine a point upon it, just silly. But must we not, if we are candid with ourselves, say essentially the same thing about an appreciable amount of adult suffering? Clear cases may be rare, but I imagine that every one of us is acquainted personally with at least one case concerning which, if we were compelled to choose outright between believing that the suffering is deserved or believing that God is unjust, common honesty would oblige us to lean to the latter alternative.

I pass on to consider a second mode of argument. This turns upon a thought which finds an apt expression in a passage from R. L. Stevenson quoted by Professor Sorley: "That which we suffer ourselves has no longer the same air of monstrous injustice and wanton cruelty that suffering wears when we see it in the case of others."[1] The sentiment which these words express has had the endorsement of many thinkers, notably of Sorley himself. For this reason alone, if for no other, it would merit our respectful attention. Its implication with respect to our present problem is, I think, obvious. What is suggested is that it is only in so far as we regard suffering from the *outside*, and not as it is as experienced by the sufferer himself, i.e. in its *real* nature, that suffering seems to impugn the goodness of God. Let us inquire, then, concerning the grounds and validity of this point of view.

[1] Sorley's *Moral Values and the Idea of God*, p. 349.

In the first place we may, I think, admit quite freely that it *is* generally the sufferings of others which stimulate our doubt of the existence of a good God. But at least part of the explanation of this may be very simple, merely the fact that there are, after all, comparatively few of us afflicted with sufferings of our own so extreme and so seemingly meaningless in character as to affect seriously the habit of thought engendered by our religious upbringing. Sympathy with the sufferings of others, rather than one's own suffering, is thus very understandably the most prolific source of doubt. Many a man whose own lot is cast in pleasant places feels himself quite incapable of thanking God for his private blessings because of his acute realization that if God is indeed the ultimate author of man's weal and woe, there are other men that have as good cause for cursing as he has for praising. And all honour to humanity that it should be so! There are surely few more pitiable spectacles than that of the man who complacently sings hallelujahs to God for his individual prosperity, utterly untroubled by the thought that the "Giver of all good things" seems also to give some very bad things—to other persons.

But in the argument we are reviewing, the claim is made that the basic reason why it is the sufferings of others that stimulate doubt is that the imagination of the onlooker tends to exaggerate the harshness of the suffering, reading into it a cruelty which it does not possess for the sufferer; does not, therefore, possess in itself. I have not seen very clearly stated anywhere the reasons which may be supposed to account for this exaggerative tendency, but we shall perhaps not go far astray if we distinguish three.

Attention might be directed, firstly, to the power of accommodation to pain of the human body-mind. It is generally what seem to be long-drawn-out agonies that especially distress the spectator. But the spectator tends to forget that to a great extent pain is a relative thing, relative to the average feeling-tone of the subject, and that for this reason long-continued pain tends to bring about its own amelioration.

This line of argument, however, will clearly not take us very far. The principle of accommodation upon which it rests is, I think, sound enough, and the spectator probably *is* apt to ignore its operation. But after all, the initial suffering, often hideous in its violence, is only too real, and the period which must elapse before substantial abatement is possible is only too real also. Nor can we find solace in the hope of future compensation, in this life at any rate, for frequently the very possibility of this is peremptorily ruled out by death.

Secondly, it may be pointed out to us that the sufferer is in many cases conscious of a personal sinfulness which makes his suffering,

though it wears for the onlooker the appearance of "monstrous injustice," seem to himself no more than a just retribution.

Here again there is a distinct measure of significant truth. We do not know the heart of man, but we are, as a rule, afforded better facilities for knowing the heart of man when it is creditable to himself than when it is not. There are perhaps not many persons who take careful measures to conceal their better qualities from the public gaze, and there are, perhaps, not many persons who do *not* take determined steps to conceal the more depraved elements in their nature. I am willing to concede that we do tend to over-estimate rather than to under-estimate the moral excellence of our fellows. But even allowing so much, it is evident that we are again not conducted very far on the road to a solution of our problem. For we have already agreed, I hope, that it is preposterous to regard all suffering as *deserved* suffering. We can accept a range of adequacy for our present principle of interpretation, but to apply it in a universal way would be a cruel impertinence, and I do not think that it merits further consideration.

The third reason for supposing that we exaggerate the sufferings of others may be conveniently considered in connection with some words of Professor Sorley's, taken from the same passage in which occurred the citation from Stevenson already alluded to. "The spectator who sees the causes of suffering," says Sorley, "often lacks insight into the way in which it is faced by the soul that is on trial, and fails to allow for the faith that frees the spirit."

Now I should be the last to deny that faith *has* this sustaining power. I believe that a faith that is profound and pure confers upon its possessor a steady serenity, an indefeasible well-being of the spirit, which abides triumphantly in face of the direst and most seemingly meaningless sufferings. But offered as a solution of our present problems, this principle seems to be open to quite unanswerable objections.

The first of these is the very obvious one that again our principle will apply only to a very limited number of cases. Some, but certainly not *all*, undeserving sufferers have their sufferings leavened and lightened by the sustaining power of faith. Nor will it do to suggest that it is the victim's own fault if he does not possess this bulwark, in that faith is a free gift open to all, and the lack of it a sure symptom of moral and spiritual ill health. For this is just not true. Whatever case can be made out for it in respect of grown men and women, there is no case at all for it in respect of children. And, unfortunately, children can suffer, and suffer very horribly. The problem of suffering would be immeasurably eased if suffering happened to be confined to the adult population of the world. But it happens not to be.

And the second objection seems equally fatal. The principle

advocated, if offered as a solution of the problem of suffering, appears to involve a *petitio principii*. Faith in God, it is suggested, can transmute suffering. But then our whole problem is, is it not? to determine whether faith in God, faith in the infinite Perfection of the Being upon Whom all things depend, is able to sustain itself, for a reflective mind, in the face of certain kinds of suffering. We cannot solve our problem by surreptitiously presupposing an affirmative answer to it. I agree that we do, in fact, and that not infrequently, see faith in God rising superior to sufferings which to human eyes, including those of the sufferer himself, seem void of any conceivable good purpose. But it is always open to the critic to take the view that this betokens nothing more than the incapacity for critical reflection of a mind preconditioned in certain ways of thinking and feeling by religious education and tradition. I do not myself regard the critic's interpretation as a universally adequate one. But if, on the other hand, faith in God's Perfection *is* sustained by reflective minds in the face of suffering which appears to them, in spite of their best efforts of thought, to be totally meaningless: in the face, that is, of manifestations of God which, if judged by the standards accessible to man, must be denounced as imperfect or even crassly evil: then, it seems to me, there is good ground for supposing that such persons are acknowledging, though it may be with but a dim and inchoate consciousness of the fact, the supra-rational character of the Divine Perfection. If there is not present in their minds, at least implicitly, the recognition that our human standards of Perfection—Justice, Benevolence, and the like—are not so much wrong, as just beside the point, when applied in appraisement of the value of the *mysterium tremendum et fascinans*, I do not for myself see how the attitude of faith can in the circumstances possibly support itself.

This, however, is a partial digression into the positive. Let me resume the thread of my criticism.

We have considered now, at perhaps sufficient length, the three main grounds for the claim that it is only for the onlooker that suffering appears incompatible with the goodness of God. It seems to me clear that neither singly nor together are these grounds capable of removing our difficulties. There remain over an appreciable number of cases to which they have no significant application. And a real solution must be capable of covering all cases. It may be that the intractable cases are relatively few. But in principle one such case would suffice. For none of us, I presume, would be satisfied with a vindication of God as good "for the most part," as "almost" perfect.

I pass on now to examine a third line of defence, of a rather different character. Is it possible, perhaps, to justify suffering on

the ground of its *disciplinary* value, on the ground that it is a necessary condition of the developed moral will? It is through toil and pain, we are told, and the readiness to endure these for the sake of a higher end than mere happiness, that the moral will can alone reveal its potential splendours. A will "purified in the fire of suffering" is no cliché of sentimental romanticists. It stands for authentic reality, and a reality which the suffrages of the best minds would acclaim to be almost the finest and highest thing in human experience. Would we really in our best moments, it is asked with point, wish to rule out the condition of its possibility by having a world so ordered that suffering is always in strict proportionment to desert?

I agree that we should not. I have been urging, it is true, that it is undeserved suffering that constitutes our problem, but that is not at all because I maintain anything so absurd as that all undeserved suffering is *ipso facto* bad and incapable of justification on the hypothesis of a good God. I have stressed undeserved suffering merely because deserved suffering constitutes no problem at all. I agree *in toto* with those who hold that, short of religion, the moral will is the thing of greatest worth in life, and also that the highest reaches of its achievement are to be attained only in and through much "hazard and hardship."

But it is very necessary, I would suggest, that we keep our heads before this attractive, and in many ways exhilarating, solution of our problem. Before venturing upon sweeping generalizations we must ask ourselves candidly and judicially—judicially, for it must be remembered that, rightly or wrongly, we *are* putting God on His trial, and that if you wish to rule out such an attitude as intolerable presumption you are coming near to sharing my dissatisfaction with the pretensions of a purely *rational* theology—we must ask ourselves candidly and judicially, I say, whether there are not cases of suffering which palpably refuse to be made intelligible in terms of our present principle. And if we do ask ourselves, to me, at least, it seems perspicuously clear that there are many such cases. I do not want to over-stress the appeal to the sufferings of children, though I think that Dostoievsky showed a sure instinct in selecting this as the overwhelming obstacle to Ivan Karamazov's acceptance of the essential goodness of the universe; for no one can seriously maintain that the torturing of little children offers a field for the discipline and purification of the moral will. But even if we appeal only to cases of adult suffering, we can, I think, find ample evidence of the insufficiency of this principle of justification. It seems an obvious condition of the disciplinary value of any suffering that at least it should not rise to such a pitch of intensity as to numb and stupefy the spirit of the sufferer. But is this morally desirable condition always preserved? I shall say nothing of "mental" suffering,

for the situation in its regard is a complicated one and could only be unravelled at many pages' length. But even if we confine ourselves to physical suffering, our memories of the recent World War must be dim indeed if we do not find ourselves ready to agree that there are assuredly some sufferings—of a quality and degree possible, perhaps, only to the modern man with his finely strung nervous organization—which pass beyond all reasonable bounds of human endurance: sufferings which are not a *discipline* of the soul but the soul's very *destroyer*, because transforming men for the time, even the best of them, into mere animals, beings that are sentient and nothing more. It is the apparent meaninglessness of sufferings like these that has driven so many of the more sensitive spirits who participated in the carnage of 1914–18 into a despairing scepticism, or worse. And I gravely fear that "rational theology" will knock upon their doors in vain.

It is time to take note, however, of an objection which some may feel disposed to raise against the *principle* underlying much of our criticism. I may be accused of viewing the whole problem of suffering from an unduly abstract standpoint. It may be agreed readily enough that the extremities of suffering to which I have been alluding are to be wished away, *if* considered by themselves. But, it may be argued, we have no right to consider them by themselves, for we see them, or see at least the possibility of their occurrence, to be inextricably connected with the conditions of a world of a certain kind; a world, namely, which is a fit place for the development of souls. We cannot conceive the possibility of the latter without presupposing the possibility of the former. Accordingly, before we rush to condemn the world because it admits of these extremities of suffering, we ought to remind ourselves that a world that does not admit of them would not be a world ordered, in Keats's famous phrase, as a "vale of soul-making." And since we are agreed upon the pre-eminent value of soul-making, we may reasonably be led to doubt whether this is not, after all, the "best of all possible worlds": whether any imagined "better" world by contrast with which we should be entitled to criticize the excellence of the present order, would not actually be a worse world. Would we consent to banish the possibility of even the most excessive suffering if the order which would have to be substituted would leave no scope for the making of souls?

I do not know whether this line of thought brings conviction to any reader. It brings none to me. In the first place, even if we grant that the possibility of the suffering that so revolts us is involved in the possibility of the world as a value of soul-making, is it so very certain that we should be prepared, in our best moments, to accept the former as the price of the latter? I should grant, though

all might not, the relative infrequency of the more hateful kinds of suffering. But even so, is not the price too great? There is a fine sentence in Pushkin which Mr. Middleton Murry somewhere quotes: "The Russian wanderer needs the happiness of *all* men wherein to find his own peace." It is in that spirit that Ivan Karamazov finds himself driven to reject the world, "out of love to humanity." And it is in that spirit that many outside the pages of a novel have felt that acquiescence in the world is possible only by the forfeiture of self-respect.

But even if we do not press this point, it is surely extremely difficult to see on what grounds it can be affirmed that the possible occurrence of the kind of suffering we are considering is an inevitable consequence of a world that is ordered for soul-making. The possibility of *suffering* is, of course, involved. But it is far from obvious why God, in creating the world-order and, presumably, determining therein the conditions of human suffering, could not have so conditioned suffering, both as to intensity and in other respects, as to make impossible those examples of it which look so much more akin to the diabolical than the Divine. For God, most of us believe, is Omnipotent, not a craftsman who has been compelled to set to work with a partly recalcitrant material. And if it be said that to take God's Omnipotence in this wise, as meaning that He can do anything at all, is but a crude error, and that His Omnipotence signifies only that He is not limited from without, but only by His own nature, which He expresses or manifests in the creation of the world, the answer of the critic is only too plain. "If this world is indeed the expression of God's nature," he will say, "then to be sure, it is idle to rail against God for not preventing its horrors. But how can I possibly be expected to reverence and acclaim as supremely Perfect a Being whose nature finds self-expression in an order manifestly so very far from perfect?"

I pass on to consider a further line of argument sometimes suggested by the defence—one upon which, however, I do not feel it necessary to dwell at length. It may be pointed out to us that at least most of the sufferings which so distress us are the result of the wickedness of the human race. The horrors of war, for example, are due to man's inhumanity to man, and for their prevention require only the replacement of the individualist spirit by the spirit of brotherly love. The remedy for our ills is, in short, in our own hands. If we do not utilize it, it is *our* fault. It is absurd for man to regard as ground for impeaching the goodness of God evils for which man is himself responsible.

Now this defence cannot mean, of course, anything so ridiculous as that each *individual* man is responsible for the evils in question. If only we could say this, we should have an easy escape from our

difficulties. It is obvious that it is, at most, only "man" in the sense of "some men" that we can deem responsible. The actual victim of the suffering may have had no part in the guidance of events which led to his misfortunes—may even have protested loudly against the fateful policy. Talk of the corporate responsibility of the human race is, of course, little more than talk. If the sins of the fathers are visited on the children, it may serve the fathers right, but nothing should persuade us that it is just to the children. But I feel sure that the defence we are considering cannot mean anything so crude and perverse. It must mean simply this, I think, that the responsibility for our distresses rests with man, and not with God, and that it is against man, therefore, and not against God, that our righteous indignation should in fairness be directed.

I am afraid that this way out is not any more satisfactory than its predecessors. It really seems impossible (if we adhere to ordinary religious postulates) not to lay the ultimate responsibility upon God Himself. Man has free will, we are told. But we are told also that man's free will is a gift from God. God is the Creator of creators. Even if we suppose, then, that God has deliberately limited His own power by the creation of free agents, so as no longer to be able to interfere effectually with the course of events, how are we to acquit God of the responsibility for the tragic consequences of His original act of Self-limitation? If that act was a real creating of real creators, and thus a real abandonment of control over the course of history, it has the appearance of being a somewhat venturesome proceeding: and the more unhappy victims of its effects, and the more compassionately disposed of their fellow-mortals, can hardly be expected to salute its wisdom.

But, you will perhaps say, this hypothesis of God's abandonment of control over His universe is purely academic. No religious man, as such, believes for a moment that God the Omnipotent Creator has deliberately degraded Himself to the rôle of God the passive spectator. I am inclined to agree. But does it not seem to follow that if God does retain control, then he does directly permit to occur (since He could, if He would, prevent) some most atrocious massacres of the innocent? Our old difficulties return upon us.

There is but one more topic that I wish to broach in connection with our problem. I must say something about a certain time-honoured, if not to-day particularly fashionable, expedient for reconciling suffering with the goodness of God. I mean the appeal to a future life, in which any grave maladjustments of mundane happiness to virtue will be redressed. I could not here—nor indeed anywhere—do even approximate justice to the problems which beset the conception of immortality; but there are certain points

to which it seems desirable, in the interests of the present thesis, to direct your attention very briefly.

Let me begin by remarking that there are two distinct questions on this matter which must *each* be able to receive an affirmative answer if we are to find in Immortality the solution of our difficulties. The first is "Have we reasonable *independent* grounds for believing in a future life so ordered as to bring a rough equivalence of happiness for sufferings which we cannot justify to ourselves having regard to this life alone?" And the second question is "Even if we have the assurance of a future life so ordered, is that assurance sufficient in itself to vindicate to us the essential goodness of the scheme of things?"

On the first question I want to make only two observations. I would remind you that many of the arguments for a future life make no pretence of proving a future life of *this* kind. And I would underline the word "independent." Our immortality must not be a mere *ad hoc* hypothesis with no other credentials save that it is necessary if we are to justify certain kinds of suffering.

On the second question, however, there is a consideration of a somewhat less obvious character which must be more fully elaborated. I should be inclined to agree that there is no kind of suffering that is incapable in principle of being compensated, compensated in the eyes of the sufferer himself. There is not, I suppose, any physical suffering known to us which is much severer than that which may have to be endured by a woman in travail. And yet we know that more often than not the woman who has become a mother is eager to proclaim, even while her bodily anguish is yet fresh and vivid before her mind, that it was all more than worth while. The pain of the past has been more than compensated by the present value, and no whit of rancour, no faintest sense of injustice, intrudes upon her joy and thanksgiving to God for His gift. Such an example, I feel, may not unreasonably arouse hope in us before our tremendous problem. But a little reflection shows that we must be cautious about applying its lesson. The compensating experience in our illustration is apprehended by the subject of it as bearing a very definite relation to the experience which it compensated. The preceding state of pain is recognized as the natural condition of the ensuing happiness, in visible organic connection with it. And in this relation the pain itself becomes charged with a deep significance. I strongly suspect that there must be a relation of this sort if the compensating happiness is to be accepted as really a justification of the preceding suffering. We require to be able to see that the preceding suffering had a meaning, that it was a condition of the fulfilling in us and by us of a valuable end.

Applying this result to our present problem, it seems to me

doubtful whether we can say, after all, that the assurance of a future life, even if it be of a kind which will furnish an equivalence of happiness for sufferings that considerations drawn from this life do not make intelligible, is enough in itself to restore our confidence in the goodness of the Power that rules the universe. We must also have the assurance that, in *that* life at least, the most seemingly meaningless of our present sufferings will reveal themselves as essential elements in some noble purpose. It may be that this assurance is capable of attainment. But it seems certain that it is to be attained not through the eye of reason but through "faith" alone. We do not, with the eye of reason, even *begin* to see how the torturing of helpless infants can minister to some noble purpose. It is not that we can only see now "as in a glass, darkly." We just don't see at all.

One word more and I have done. It is a gloomy picture that I have been painting. But, looked at from the point of view of "pure reason," is it not a pretty gloomy reality? I read not long ago a report of an address by the Dean of St. Paul's in which, after admitting that Christianity had not yet entirely solved the problem of evil, the Dean went on to say that "this is a world for brave men, not for those who are afraid of pain." But let us not deceive ourselves. Less than seventeen years ago brave men, very brave men, were being reft of their very sanity by the sufferings endured and witnessed on the battlefields of France. Is it a world that can be borne even by brave men? One is sometimes tempted to say rather that this is a world for callous men, men insensitive in their own bodies and without bowels of compassion for others. If souls of finer fibre *do* find the world endurable: if they do (as we know that they may) preserve through all an imperishable faith in the Perfection of the Supreme Being upon whom all things depend: then it can only be, surely, because this Supreme Being, as He is made known to them through religious experience, is felt so to transcend our finite comprehension that any attempt on our part to grasp and pass judgment upon His universe is repudiated as palpably absurd; if not, indeed, as bordering upon the impious. We ought not, indeed we are not able, to renounce the use of our intellect. But we can, I submit, in virtue of an experience profounder than the intellectual, recognize the intellect's limitations, its hopeless incompetence to adapt its puny this-world concepts to the Infinite Majesty of the Godhead. That such a recognition is present, implicitly if not explicitly, in every authentic religious experience, is the central contention of Otto's great book, to whose inspiration I once more gladly acknowledge my indebtedness.

MR. DUNNE'S THEORY OF TIME IN "AN EXPERIMENT WITH TIME"

PROFESSOR C. D. BROAD

I WANT to state the theory in *An Experiment with Time* as clearly as I can in my own way; then to consider its application to Precognition; and then to consider whether there are any other grounds for accepting it beside its capacity to account for the possibility of Precognition. Mr. Dunne himself holds that the theory is required quite independently of explaining Precognition. He also holds that the facts which demand a serial theory of Time require that the series shall be infinite. Both these contentions might be mistaken, and yet Mr. Dunne might be right to the extent that it is necessary to assume *a series of at least two terms for the special purpose of explaining Precognition.*

It seems clear from Chapter XIX of *An Experiment with Time* that Mr. Dunne starts from a suggestion made by Hinton in his book *The Fourth Dimension.* It will therefore be well to explain Hinton's suggestion before trying to state Mr. Dunne's theory. But there is one preliminary step which it will be worth while to take before dealing with Hinton's suggestion. We are going to be concerned with the notion of "spaces" or "spatial manifolds" of more than three dimensions; it will therefore be wise to begin by defining certain terms and stating certain elementary facts which are constantly needed in this connection.

MANIFOLDS OF *n* DIMENSIONS

A spatial manifold is of n dimensions if exactly n independent variables have to be fixed in order to determine a point (i.e. a completely determinate position) in it. Thus, in a spatial manifold of n dimensions, we shall need n independent simultaneous equations to determine a point. And a point is something which, being completely determinate, has "zero *degrees of freedom.*"

Now suppose we were given $n - 1$ independent simultaneous equations. These would leave *one* degree of freedom in a n-fold. They would therefore represent a *line* (straight or tortuous) in that n-fold. We will call a line in a n-fold a "$(1,n)$-fold." Suppose we were given $n - 2$ independent simultaneous equations. These would leave *two* degrees of freedom in a n-fold. They would therefore represent a *surface* (flat or curved) in the n-fold. We will call a surface

in a n-fold a "$(2,n)$-fold." In general, m independent simultaneous equations would leave $n - m$ degrees of freedom in a n-fold, and so would determine a set of points in the n-fold which we will call a "$(n - m, n)$-fold." Plainly a $(0,n)$-fold is a *point* in a n-fold; and a (n,n)-fold is identical with the n-fold itself. Conversely a (m,n)-fold is a set of points in a n-fold determined by $n - m$ independent simultaneous equations.

In a three-fold a *point* is a (0,3)-fold, and requires *three* independent equations; a *line* is a (1,3)-fold, and requires *two* independent equations; a *surface* is a (2,3)-fold, and requires *one* equation. The three-fold itself is a (3,3)-fold.

In a four-fold a *point* is a (0,4)-fold, and requires *four* independent equations; a *line* is a (1,4)-fold, and requires *three* independent equations; a *surface* is a (2,4)-fold, and requires *two* independent equations. There is also a fourth kind of set of points here, viz. a (3,4)-fold, which requires *one* equation. The four-fold itself is a (4,4)-fold. And so on for any number of dimensions.

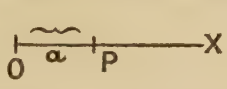
Now it is useful to look at this from another point of view. We can start with a fixed number of independent simultaneous equations, and consider what kind of manifold these equations will determine in manifolds of various dimensions. Thus:

One equation determines a *point* in a *one-fold*, a *line* in a *two-fold*, a *surface* in a *three-fold*, a (3,4)-fold in a *four-fold*, and a $(n - 1,n)$-fold in a n-fold.

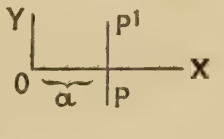
Two independent equations *cannot occur* in connection with a *one-fold*; they determine a *point* in a *two-fold*, a *line* in a *three-fold*, a *surface* in a *four-fold*, a (3,5)-*fold* in a *five-fold*, and a $(n - 2,n)$-*fold* in a *n-fold*.

Three independent equations *cannot occur* in connection with either a one-fold or a two-fold; they determine a *point* in a *three-fold*, a *line* in a *four-fold*, a *surface* in a *five-fold*, a (3,6)-*fold* in a *six-fold*, and a $(n - 3,n)$-*fold* in a *n-fold*. And so on.

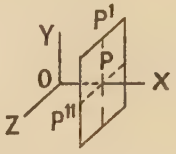
It remains to consider one important consequence of this which we shall need in discussing Mr. Dunne's theory. Take a single equation, involving only one variable, e.g. $x = a$. In a one-fold this represents a *point* at distance a from the origin along the only axis.



In a two-fold it represents a *straight line* at right angles to the X-axis, which cuts the latter at $x = a$.

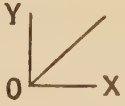


In a three-fold it represents a *plane* at right angles to the X-axis, which cuts the latter at $x = a$.

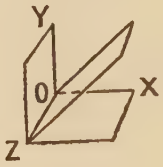


In a four-fold it represents a (3,4)-fold at right angles to the X-axis, cutting the latter at $x = a$. And so on.

Now consider a single equation involving two variables, e.g. $x = y$. In the case of a one-fold this is meaningless. In the case of a two-fold it represents a *straight line* bisecting the angle between the X and the Y axis.



In the case of a three-fold it represents the *plane* which arises from drawing through every point in the previous straight line a straight line parallel to the Z-axis. This plane bisects the angle between the planes ZOX and ZOY and contains the Z-axis.



In the case of a four-fold it represents the (3,4)-*fold* which arises from drawing through every point in the previous plane a straight line parallel to the U-axis. And so on.

Exactly similar remarks apply to curves. Thus the equation $x^2 + y^2 = a^2$ represents a *circle* of radius a with the origin as centre in a two-fold. In a three-fold it represents the *cylindrical surface* obtained by drawing through every point in the circle a straight line parallel to the Z-axis. In a four-fold it represents the (3,4)-fold obtained by drawing through every point in this cylindrical surface a straight line parallel to the U-axis. And so on.

Hinton's Suggestion

Suppose that there were a *material thread* at rest in a *plane*, i.e. a material (1,2)-fold at rest in a two-fold. Suppose that a certain *straight line* moved in this plane with a uniform velocity at right

angles to itself. Provided that the thread always makes an angle of less than 90 with the direction in which the moving line travels, the moving line will cut the thread in a *point* at each moment and in a different point at each different moment. Suppose that there were an observer whose field of observation at any moment is confined to the contents of the moving line at that moment. Instead of perceiving a *stationary thread* he would perceive a *moving particle* occupying various positions in the various lines which constitute his successive fields. This will be obvious from Fig. 1.

If there were a number of such linear threads in the plane there would be an equal number of material particles observed in each field. It is evident that the velocities of these particles, as observed by this observer, would be completely determined by (*a*) the velocity of the moving line, which we have assumed to be *uniform*, and (*b*) the purely *geometrical* properties of the threads. Suppose that the equation of a thread is $y = f(x)$. Let the velocity of the moving

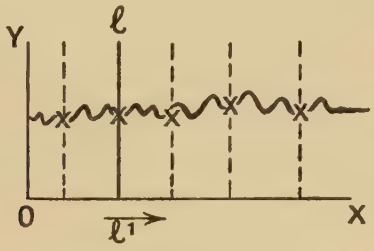


FIG. 1.

line be c along the X-axis. Then the observed velocity of the corresponding particle will be at any moment dy/dt. This $=(dy/dx)(dx/dt)$, i.e. $c(dy/dx)$.

We can now extend this as follows. Suppose that we now have a tortuous thread in a *three-dimensional space*, i.e. a (1,3)-fold at rest in a three-fold. Suppose that a certain *plane* moves at right angles to itself in this three-fold with uniform velocity. At any moment it will cut the thread at a *point*. Suppose that there is an observer whose field of observation at any moment is confined to the contents of this moving plane at that moment. Instead of perceiving the *stationary thread*, as such, he will perceive a *moving particle* occupying various positions in the various planes which constitute his successive fields (see Fig. 2).

If there were a number of such threads in the three-fold, there would be an equal number of material particles observed in each field. The velocities of these particles, as observed by this observer, would be completely determined, both in magnitude and direction in the field, by (*a*) the velocity of the moving plane, which we have

assumed to be *uniform*, and (*b*) the purely *geometrical* properties of the threads. Suppose that the equations of a thread are $x = f(z)$ and $y = g(z)$. (It will need two equations because it is now a (1,3)-fold.) And suppose that the moving plane moves along the Z-axis with velocity c. Then the observed velocity of the particle along the X-axis of the observer's field will be dx/dt, which $= (dx/dz)(dz/dt)$, and therefore $= c(dx/dz)$. Its observed velocity along the observer's Y-axis will be dy/dt, which $= c(dy/dz)$.

We have now to extend this one step further. We now imagine a tortuous material thread in a four-fold, i.e. a (1,4)-fold. Suppose that a certain (3,4)-fold moves at right angles to itself with uniform velocity in this four-fold. At any moment it will cut the thread in a *point*. For the (1,4)-fold requires three independent equations, and the (3,4)-fold requires one equation. So their intersection is represented by four simultaneous equations. It therefore is a (0,4)-fold, i.e. a *point* in the four-fold. Suppose that there is an observer whose field of observation at any moment is confined to the contents of this moving (3,4)-fold at that moment. Instead of perceiving the

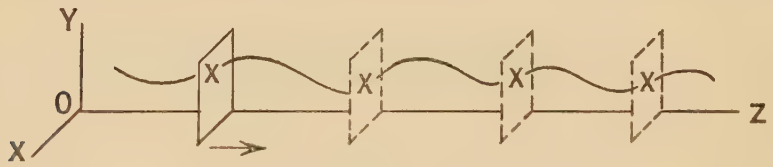


FIG. 2.

stationary thread, as such, he will perceive a *moving particle* occupying various positions in the various (3,4)-folds which constitute his successive fields. If there were a number of such threads in the four-fold, there would be an equal number of such particles observed in each field. The velocities of these particles, as observed by this observer, would be completely determined, both in magnitude and direction, by (*a*) the velocity of the moving (3,4)-fold, which we have assumed to be *uniform*, and (*b*) the purely *geometrical* properties of the threads.

Since a thread is now a (1,4)-fold it will be represented by three simultaneous equations. Suppose that the equations of a thread are $x = f(u)$, $y = g(u)$, $z = h(u)$. And suppose that the moving (3,4)-fold moves along the U-axis with velocity c. Then the observed velocity of the particle along the observer's X-axis will be $c(dx/du)$; along his Y-axis it will be $c(dy/du)$; and along his Z-axis it will be $c(dz/du)$.

Now a "rigid body" is a set of particles in a three-dimensional space, such that every pair of particles in the set keep at a constant distance apart. It will therefore be the intersection of a *bundle* of (1,4)-fold threads with the moving (3,4)-fold. The condition of

rigidity is that for every pair of threads, r and s, in the bundle $(x_r - x_s)^2 + (y_r - y_s)^2 + (z_r - z_s)^2$ shall be independent of u.

This completes my account of Hinton's suggestion. The main interest of it is this. It shows that, if we assume one additional spatial dimension beside the three that we can observe, and if we suppose that our field of observation at any moment is confined to the contents of a (3,4)-fold which moves uniformly at right angles to itself along a straight line in this (3,4)-fold, then there is no need to assume *any other* motion in the universe. This *one uniform rectilinear* motion of *the observer's field of observation*, together with the *purely geometrical properties* of the *stationary* material *threads* in the four-fold, will account for all the *various observed motions* (various both in magnitude and in direction) of the material *particles* which are the appearances of these threads in the successive fields of observation. From this point of view there is no advantage in carrying the suggestion further, viz. into five or more dimensions. There will always have to be a field moving with uniform rectilinear velocity at right angles to itself; so that no further simplification is introduced to balance the added complication of an extra dimension. But, although such an extension of Hinton's suggestion has no advantage from the point of view of simplifying the treatment of the motion of matter, it may be of use for other purposes. It may, e.g., be of use for explaining Precognition. If so, it will be worth trying.

Mr. Dunne's Theory

(1) *Formal Exposition.*—Mr. Dunne's theory, in its purely formal and geometrical aspect, is simply an extension of Hinton's suggestion. The *moving field* of Hinton's observer is now treated in the way in which Hinton treated the *moving particles* of ordinary common sense.

In order to explain this extension we will consider first the artificially simplified case of Hinton's theory, illustrated in Fig. 1, where the threads are confined to a two-fold and the observer's field of view at any moment is confined to the contents of a straight line which moves uniformly at right angles to itself in that two-fold. We will then proceed to the extension of the actual case, where the threads are (1,4)-folds and the observer's field is a moving (3,4)-fold.

Starting with Fig. 1, let us draw an axis OZ at right-angles to the paper, and a plane through OY bisecting the angle between the planes YOX and YOZ. Call this plane YOL. Now imagine a plane moving at right angles to the Z-axis with uniform velocity c. This will cut the plane YOL in a series of straight lines parallel to YO, such as Y'O' (see Fig. 3).

Suppose that there is an observer whose field of observation at any moment is confined to the contents of the moving plane at that

moment. Then he will observe in all his successive fields a straight line which keeps parallel to his Y-axis and moves from left to right along his X-axis. The velocity with which it moves along his X-axis will be c. For it will be the rate at which successive lines parallel to Z′O′ in Fig. 3 increase as the moving plane takes up its successive positions along OZ. Now at every moment Z′O′ = OZ′, since the plane YOL makes an angle of 45 with YOX and YOZ.

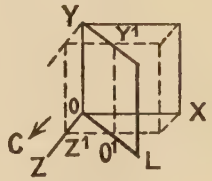


FIG. 3.

And the rate at which OZ′ is increasing is c, for we have assumed that the moving plane travels along OZ with velocity c.

We must now turn our attention to the thread in the plane YOX in Fig. 1. Imagine lines drawn through every point of this thread parallel to the Z-axis. The *thread* is now replaced by a *corrugated sheet* with its corrugations stretching indefinitely parallel to OZ. Our original thread was the section of this sheet by the plane YOX. The moving plane will cut this sheet at every moment in a wavy line exactly similar to the original thread and exactly similarly situated in each successive position of the plane (see Fig. 4).

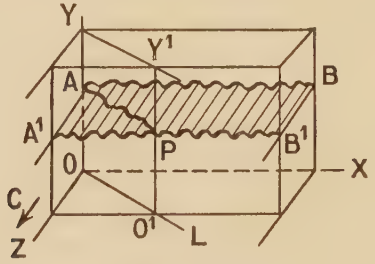


FIG. 4.

An observer whose field of observation at any moment is confined to the contents of the *moving plane* at that moment will have the following experiences. He will perceive a *stationary sinuous thread* and he will perceive a *straight line* which keeps parallel to his Y-axis and *moves* from left to right *along his X-axis with uniform velocity c*. The moving straight line cuts the stationary thread at a *different point* at each different moment until the line gets to the right-hand end of the thread. After this the thread will continue indefinitely to

be perceived simply as a stationary whole without any line moving along it and cutting it.

Suppose, on the other hand, that the observer's field of observation at every moment were confined to the contents of the *straight line* in which the moving plane intersects the fixed plane YOL at that moment. In that case all that he would perceive would be a *single particle moving up and down* along the X-axis. He would perceive *no* moving straight line and *no* stationary sinuous thread.

It is now quite easy to extend this reasoning to the actual case of a thread in a four-fold. This is a (1,4)-fold, and is therefore represented by three independent simultaneous equations, $x = f(u)$, $y = g(u)$, and $z = h(u)$. Suppose we now assume that our original four-fold is a (4,5)-fold, and that the fifth dimension of the five-fold is the axis W. These three equations will now represent a (2,5)-fold, i.e. a *surface,* in the five-fold. Since the equations do not contain W, this (2,5)-fold will be the surface obtained by drawing through every point in the original thread a straight line of indefinite length parallel to the W-axis. It will, therefore, be a corrugated sheet of the kind already described. The original thread will now be the section of this sheet by the (4,5)-fold $w = 0$. So it is now represented by the *four* equations $x = f(u)$, $y = g(u)$, $z = h(u)$, and $w = 0$.

Let us now suppose that there is in the five-fold a manifold whose equation is $u = w$. This will be a (4,5)-fold. It will intersect the corrugated (2,5)-fold in a *line.* For between them we have the *four* independent equations $x = f(u)$, $y = g(u)$, $z = h(u)$, and $u = w$. These will determine a (1,5)-fold, i.e. a line. It is clear that this line will be symmetrically situated as regards the axes U and W.

Lastly, consider a moving manifold whose equation at any moment t is $w = ct$. This will be a (4,5)-fold moving at right angles to itself along the W-axis with uniform velocity c. As t varies continuously we get a series of such (4,5)-folds further and further along the W-axis. Each of them will intersect the (4,5)-fold $u = w$ in a (3,5)-fold; for between them they give the *two* independent equations $w = ct$ and $u = w$. This (3,5)-fold will intersect the corrugated (2,5)-fold in a *point.* For the intersection is determined by the *five* independent equations $x = f(u)$, $y = g(u)$, $z = h(u)$, $w = ct$, and $u = w$. It is therefore a (0,5)-fold, i.e. a point. Lastly, the (4,5)-fold $w = ct$ will intersect the corrugated (2,5)-fold in a *line.* For the intersection is determined by the *four* independent equations $x = f(u)$, $y = g(u)$, $z = h(u)$, $w = ct$. It is therefore a (1,5)-fold, i.e. a line. It is obviously a line exactly similar to the original thread, whose equations are $x = f(u)$, $y = g(u)$, $z = h(u)$, $w = 0$. The only difference is that it is in the (4,5)-fold $w = ct$ instead of the (4,5)-fold $w = 0$.

Now let us suppose that there is an observer whose field of

observation at any moment t is confined to the contents of the (4,5)-fold $w = ct$. At every moment he will perceive the (1,5)-fold which is the intersection at that moment of this moving (4,5)-fold with the corrugated (2,5)-fold. He will therefore perceive a *stationary sinuous thread* in a *four-fold*, and not a stationary corrugated surface in a five-fold. He will perceive the (3,5)-fold, which is the intersection at any moment of the moving (4,5)-fold $w = ct$ with the stationary (4,5)-fold $u = w$, at a different position (viz. further along the U-axis) at each successive moment. He will therefore perceive it as a *three-fold* which keeps at right-angles to the U-axis and *moves steadily along it* with a uniform velocity c. It will be perceived as cutting the stationary sinuous thread at a *different point* at each different moment until it gets to the end of the thread. After this the thread will continue indefinitely to be perceived simply as a stationary whole in a four-fold, without any three-fold moving along it and cutting it at successive points.

Suppose, on the other hand, that the observer's field of observation at every moment were confined to the contents of the (3,5)-fold in which the moving (4,5)-fold $w = ct$ cuts the stationary (4,5)-fold $u = w$ at that moment. In that case he would perceive a *single particle* (viz. the (0,5)-fold represented by the set of equations $u = w$, $w = ct$, $x = f(u)$, $y = g(u)$, $z = h(u)$) *moving about* in a three-fold. He would perceive *no* moving three-fold and *no* stationary thread. He would, in fact, be in precisely the position of the ordinary man in his normal everyday experiences.

This completes the formal exposition of the second stage of Mr. Dunne's "serial time." The first stage is, of course, simply Hinton's suggestion. Mr. Dunne admits that, for the purpose of explaining Precognition, there is no need to go beyond the stage which we have now reached. On other grounds, which we will not now consider, he thinks that the process must be carried on indefinitely, adding a further spatial dimension at each stage.

We shall confine our attention to the four-dimensional and the five-dimensional stages, and we shall refer to them respectively as "Stage I" and "Stage II." For many purposes the artificially simplified cases, represented in Figs. 1 and 4, are quite adequate representatives of Stages I and II respectively. They have the advantage that they can be illustrated by diagrams; since the first involves only two, and the second only three, dimensions.

(2) *Application of the Theory to Precognition.*—It is easy to see in outline how the theory just explained bears on the possibility of Precognition. For this purpose we can confine ourselves to the artificially simplified case illustrated in Fig. 4, where only three dimensions in all are introduced and the moving field of observation is supposed to be a plane which keeps at right angles to the Z-axis

and travels along it with uniform velocity *c*. The figure is reproduced below, with the addition of a line Y″P′O″, which will be needed later in the argument.

We have to compare the experiences (*a*) of an observer whose field at any moment is confined to the contents of this *moving plane* at that moment, and (*b*) of an observer whose field at any moment is restricted to the contents at that moment of the *moving straight line* in which the moving plane intersects the stationary plane YOL. Let us call these observers "Observer II" and "Observer I" respectively.

At each moment Observer II perceives the *whole breadth* of the corrugated sheet. It is true that, at each different moment, he observes different linear sections across its length in the Z-direction. He fails to recognize this; for he knows nothing of the Z-dimension and therefore does not know that there is a sheet or that he is travelling along its length in the Z-dimension. But, since all the

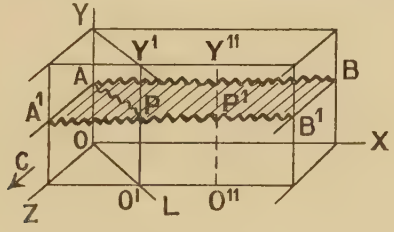


FIG. 5.

sections which he perceives are parallel to each other and exactly similar, the whole spatial form of the sheet in the X and Y-dimensions will be apparent to him at every moment.

At each moment Observer I perceives only *one point* in the corrugated sheet. It will be a different point at each different moment, and it will always lie in the wavy line AP in which the plane YOL cuts the corrugated sheet. This observer knows nothing of the Z-dimension and nothing of the X-dimension. He regards the successive points which he observes as *successive positions of a single particle* which moves up and down the only axis which he recognizes, viz. the Y-axis. Thus Observer II perceives *at every moment* those corrugations which the field of Observer I *has intersected*, but is no longer intersecting, and those corrugations which the field of Observer I *will intersect*, but has not yet intersected. What Observer I perceives *successively* as a *series of events constituting the history of a moving particle* is perceived *continuously* by Observer II as *an unchanging wavy thread.*

Now, if Observer II ever concentrates his attention, so that it is confined to the contents of the moving straight line instead of

ranging over the contents of the whole moving plane, he becomes identical with Observer I. Whenever he relaxes his attention again he again becomes Observer II. It will be useful henceforth, instead of talking of "Observer II" and "Observer I," to talk of "the Observer in the expanded state" and "the Observer in the contracted state."

Now, if the observer can, at certain moments, contract his attention to the contents of a single *vertical line* in the moving plane, he may not be obliged to contract it to the contents of *that particular line* Y′O′ in which the moving plane then intersects the stationary plane YOL. He might, instead, concentrate his attention at a certain moment on the contents of another vertical Y″O″ further along the X-axis than Y′O′. If he does this, he will then perceive the point P′, in which the line Y″O″ cuts the corrugated surface, as *an event in the history of a particle* and not as a section of a stationary thread.

Let us now make the following suppositions. (i) That, in normal waking life, the observer's attention is automatically confined at each moment to the contents of the moving line Y′O′ in which the moving plane is then intersecting the stationary plane YOL, (ii) That in sleep and certain other conditions this automatic constraint is removed and he passes into the expanded state. (iii) That, when he is in the expanded state, he may, from time to time, reconcentrate his attention so that it is confined to the contents of some line, such as Y″O″, other than the line Y′O′ in which the moving plane is then intersecting the stationary plane YOL. This line may be either further along the X-axis than Y′O′ or not so far along the X-axis as Y′O′.

Let us suppose that the observer passes into the expanded state a little while before the moment represented in Fig. 5. At the moment represented in Fig. 5, he concentrates his attention on the contents of the line Y″O″, which is further along the X-axis than Y′O′. Later on he wakes up, and henceforth his attention is automatically contracted at each moment to the contents of the line in which the moving plane then intersects the plane YOL. To illustrate the situation we will extract the corrugated sheet from Fig. 5, thus producing Fig. 6 below.

When the moving plane has got to a certain position, A‴B‴, in Fig. 6, its intersection with the fixed plane YOL intersects the corrugated sheet in a point R. R lies on the same corrugation as P′, the point on which the observer concentrated his attention when he was asleep and the moving plane had got only to A′B′. Since the observer is now awake, his attention is now automatically confined to the contents of the intersection between the moving plane and the fixed plane YOL. He therefore perceives the point R as the *present position of a moving particle.* Since R lies on the same corru-

gation as P′, and the sheet is assumed to stretch uniformly in the Z-direction, the geometrical properties of the sheet round about R will be an exact reproduction of the geometrical properties of the sheet round about P′. Now, when successive intersections of the moving field with the corrugated sheet are perceived as successive events in the history of a particle, the position and motion which this particle will be perceived as having at any moment depend entirely on the geometrical properties of the corrugated sheet at the point then intersected and on the velocity of the moving field. Therefore the position and motion which the observer *perceives* the particle to have when his moving field gets to A‴B‴ are exactly like the position and motion which he *dreamed* the particle to have when his moving field had only reached A′B′. If he recorded his dream when he woke up, i.e. when his moving field had reached the intermediate position A″B″, he would certainly be inclined to say, when

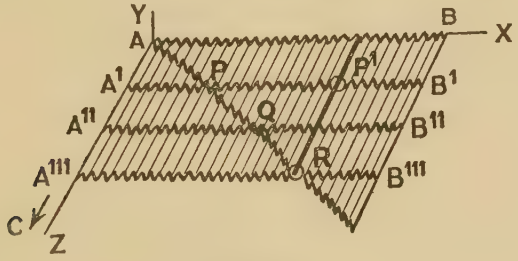


FIG. 6.

his field reached the position A‴B‴, that he was now perceiving an event of which he had already dreamed.

It is evidently quite easy to extend this reasoning from the artificially simplified case of three dimensions to the real case of five dimensions. We have simply to make the following substitutions. (i) For the sheet, corrugated in the X and Y-dimensions and uniform in the Z-dimension, we substitute a (2,5)-fold, corrugated in the X, Y, Z, and U-dimensions and uniform in the W-dimension. The old sheet was of finite breadth in the X-dimension and of indefinite extent in the Z-dimension. The substituted (2,5)-fold is of finite breadth in the U-dimension and of indefinite extent in the W-dimension. The corrugations of the old sheet were of small extent in the Y-dimension as compared with the breadth of the sheet in the X-dimension. The corrugations of the substituted (2,5)-fold are of small extent in the X, Y, and Z-dimensions, as compared with its extent in the U-dimension. (ii) For the plane $z = ct$, moving with uniform velocity c along the Z-axis and keeping always at right angles to the latter, we substitute the moving (4,5)-fold whose equation at any moment t is $w = ct$. This moves along the W-axis

with uniform velocity c, keeping always at right angles to the latter. For the stationary plane YOL, whose equation is $x = z$, we substitute the stationary (4,5)-fold whose equation is $u = w$. The argument then proceeds, *mutatis mutandis*, exactly in the same way as the argument in the artificially simplified three-dimensional case.

It is extremely important to notice that, on this theory of "Precognition," no event ever is "precognized" in the strict and literal sense. The dreamer who has a veridical precognitive dream *is not* acquainted in his dream with *that very same event* which later on will happen and fulfil his dream. In the dream he was acquainted with a certain point in the corrugated surface *as it then was*, viz. the then state of the point P′. When the dream is fulfilled he is acquainted with a *different* point in the corrugated surface *as it now is*, viz. the now state of the point R. The latter event is *identified* with the former because the two are precisely alike. And the two are precisely alike because the perceived points occupy corresponding positions on a sheet which is assumed to have remained rigid during the interval between the two experiences, and because this sheet is assumed to be uniform in the dimension along which the moving field is travelling. It is just because Mr. Dunne's theory of "Precognition" excludes precognition, in the strict and literal sense, that it can deal with the paradox that a "precognition" may cause the person who has it to take measures which will prevent the "precognized event" from happening. We must now turn to this aspect of the theory.

(3) *Action to Avoid the Fulfilment of a "Precognition."*—Here, again, it is easy to see in outline how the theory must be applied. We must modify the assumption that the corrugated sheet is absolutely rigid and absolutely uniform in the dimension along which the field of observation is moving. We must suppose that the observer can act on the sheet at the place in it which his moving field now occupies, and can thus modify its structure in parts further ahead which the moving field has not yet reached. In order to explain this we will return to the artificially simplified three-dimensional case, illustrated in Figs. 5 and 6.

Let us suppose that the observer, who concentrated his attention on P′ in Fig. 6 when his field had reached A′B′ and he was still asleep, wakes up when his field gets to A″B″. Let us suppose that he then remembers his dream and takes it to be a precognition of a certain future position and motion of a particle. Suppose that, for some reason, he desires that the particle shall not have this position and motion in future. Now that he is awake his field is automatically contracted to the intersection of the moving plane with the stationary plane YOL in Fig. 5. Its content is therefore confined to the point Q of the corrugated sheet in Fig. 6. Suppose that he can act on the corrugated sheet at Q in such a way as to modify its geometrical

structure instantaneously at every point whose Z-co-ordinate is greater than that of Q and whose X-co-ordinate is also greater than that of Q. Two consequences will follow. (*a*) The geometrical properties of the sheet at R will no longer be exactly like the geometrical properties of the sheet at P′, as they would have been if he had not interfered with the sheet at Q. Therefore the position and motion which the observer perceives the particle to have when his moving field gets to A‴B‴ *are not* (as they would have been if he had not interfered in consequence of his dream) exactly like those which he dreamed the particle to have when his field had only reached A′B′. As a consequence of his "precognitive dream" he has taken action which has prevented the "precognition" from being fulfilled. (*b*) As the interference with the sheet at Q has affected *all* points in the sheet whose Z and X-co-ordinates are greater respectively than the Z and X-co-ordinates of Q, it will have affected all the points in the line QR. Therefore the modification of R will not be perceived as a sudden isolated miracle when the moving field reaches R. It will be perceived as the consequence of a change which was deliberately initiated when the field had reached Q and which modifies all the subsequent events in the history of the particle.

As before, there is no difficulty in extending this reasoning from the artificially simplified three-dimensional case to the real case of five dimensions. The necessary substitutions have already been stated.

(4) *Concrete Interpretation of the Theory.*—I have now completed the purely formal exposition of the theory and its application to Precognition. The question remains whether it is a mere ingenious formal curiosity. Can we identify the corrugated (2,5)-fold, the stationary (4,5)-fold $u = w$, and the moving (4,5)-fold $w = ct$, respectively, with any three entities of which we have empirical knowledge? I do not find Mr. Dunne's answer to this question at all clear. He seems to connect the corrugated (2,5)-fold, which he calls the "Substratum," with the observer's brain. He calls the stationary (4,5)-fold $u = w$ the "Reagent"; but I have failed to discover or to understand what empirical object he proposes to identify with it. I am afraid that I can throw very little light on these vitally important questions, but there are certain things which seem worth saying.

(i) A brain is a very complex material system which, from the ordinary three-dimensional point of view, consists of an enormous number of material particles moving about in various ways and influencing each other's motions by occasional impact or continual action at a distance. From the five-dimensional point of view *each* particle is correlated with the whole of *one* of our corrugated (2,5)-

folds, and each *different* particle is correlated with a *different* (2,5)-fold. Therefore a complete brain must be correlated with a whole *stack*, containing an enormous number of these (2,5)-folds touching each other at certain points (corresponding to impacts of the brain-particles) and separated at other points. Such a stack will be of no great thickness in the X, Y, and Z-dimensions; for when a brain is regarded as a persistent three-dimensional object, it is a comparatively small thing. The width of the stack in the U-dimension may be considerable, since it is proportional to the time for which the brain would be said to last by an observer who regarded it as a three-dimensional object with a variable history. The extension of the stack in the W-dimension would, for all we know, be indefinitely great. If we are to correlate Mr. Dunne's "Substratum" with the observer's brain, we must identify the Substratum with such a stack of (2,5)-folds, taken as a whole, and not with any one (2,5)-fold.

(ii) Even the suggestion of a stack of (2,5)-folds, such as we have just described, is an over-simplification of the actual facts about the brain. It would be adequate if a brain, from the three-dimensional point of view, were a system which consisted of the same particles throughout its whole history. But this is certainly not true. The brain is constantly, if slowly, breaking down into waste products which are ultimately excreted; and it is constantly, if slowly, being rebuilt from materials which were ultimately ingested in the form of food, water, and air. The sheet corresponding to each ultimate particle of the brain would, so far as we know, be extended indefinitely in the U-dimension as well as in the W-dimension. For when atoms are regarded as particles which persist and move about in a three-dimensional space, we know of no limit to the length of their history. We shall have to think of each stack by analogy to a finite length of cable made of numerous wires twisted together in the following way. Each individual wire is much longer than the cable. Each wire enters the cable at a certain point, becomes part of the cable for a certain segment of its length, and leaves the cable again at a certain other point. The segment of any individual wire which forms part of the cable is considerably shorter than the cable itself, though each individual wire as a whole is indefinitely longer than the cable itself. If we are to correlate Mr. Dunne's "Substratum" with the observer's brain, we must identify the Substratum with a stack of (2,5)-folds conceived by analogy with such a cable as has just been described.

(iii) An observer, whether he is in the waking or the sleeping state, is acquainted with sensa, images, and bodily feelings. He is not, *prima facie*, acquainted with the moving particles of his own brain. I think it is clear at the outset that Mr. Dunne takes the contents

of the observer's field at any moment to be "presentations" (i.e. sensa, images, bodily feelings, etc.), and *not* to be that part of the Substratum which the field intersects at that moment. He assumes that there is a one-to-one correlation between the sensible, positional, and other qualities of the presentations in the observer's field at any moment, on the one hand, and the geometrical characteristics of that part of the Substratum which the field is then intersecting, on the other. But, although this distinction between the contents of the field at any moment and the part of the Substratum which the field intersects at that moment is definitely drawn at the beginning of the discussion, it seems to drop out of sight in the formal exposition of the theory. In Mr. Dunne's formal exposition, as in my modified reproduction of it, everything proceeds as if what the observer is acquainted with were *the Substratum itself*. Everything proceeds as if the observer, when in the expanded state, perceives sections of the Substratum itself as a set of stationary sinuous lines; and as if, when he is in the contracted state, he perceives certain points of the Substratum itself as a set of moving interacting particles. When we remember that this supposition is admittedly false, we begin to wonder whether the consequences developed from it in the formal exposition can be carried over to the presentations of our actual waking and sleeping experience.

(iv) I cannot think of any concrete interpretation which can plausibly be put on the "Reagent," i.e. the stationary (4,5)-fold $u = w$ which intersects the moving (4,5)-fold $w = ct$ in a moving (3,5)-fold to which the observer's field is automatically confined whenever he is in the contracted state. Mr. Dunne talks of it as "coming *between*" (his italics) "observer 2 and the substratum section . . . which is, somehow, affecting that observer 2." It looks as if he pictured the Substratum as the floor of a long, narrow room, and the Reagent as a long, thin strip of carpet stretched from one corner to the diagonally opposite corner of the room, leaving most of the floor bare. The field of the observer in the expanded state seems to be pictured as stretching right across the breadth of the room and moving down the length of it. So at every stage in the motion of the field the carpet comes between the field and one part of the floor, but the field is in direct contact with the floor where it extends beyond the edges of the strip of carpet on both sides of the latter. This, however, is mere mythology.

Perhaps it would be enough to make the following assumptions. (*a*) That those points of the Substratum which satisfy the equation $u = w$ have a peculiar property which does not belong to any other points of the Substratum. (*b*) That the various presentations which occupy the moving field at any moment are determined jointly by the velocity of the field along the W-axis and the properties of the

points at which the field then intersects the Substratum. (*c*) That the peculiar property of those points of the Substratum which satisfy the equation $u = w$ imparts a peculiar quality to the presentations which are due to *them*, and thus makes these presentations stand out in any field from the rest of the presentations in that field. And (*d*) that the "contracted state" of the Observer just consists in his inability to turn his attention away from the presentations which are marked out by this peculiar quality and to attend to the contents of his field as a whole.

(5) *The Alleged Infinite Series.*—Mr. Dunne's doctrine on this point seems to be fairly summarized in the following four propositions. (i) Even if there had been no evidence for Precognition, the admitted facts about time make it necessary to start on the series whose first two stages we have described. (ii) It is then found, as an interesting and important collateral consequence, that at Stage II an explanation of Precognition emerges. (iii) If it is necessary to start on the series, it is impossible to stop anywhere in it. At each stage there is precisely the same need to introduce a further spatial dimension as there was at the stage before. (iv) This regress, though infinite, is harmless. Mr. Dunne never doubts the reality of time and change, and he talks cheerfully of "the Observer at infinity."

I can state quite briefly my own opinion about these four propositions. (i) I accept the third proposition. At the first stage motion of particles along the X, Y, and Z-axes is replaced by motion of the field of observation along a fourth spatial axis, U, at right angles to these three. At the second stage this motion along the U-axis is replaced by motion along a fifth spatial axis, W, at right angles to the previous four. Plainly, if it is *necessary* to start this process, there is no stage at which it is not equally necessary to continue it. (ii) I reject the fourth proposition. If this regress is involved in the notion of time, it is vicious, and the notion of time must be rejected as delusive. The "Observer at infinity" would be the *last* term of a series which, by hypothesis, *cannot have* a last term. Therefore the notion of "the Observer at infinity" is a self-contradictory notion and there can be no such observer. Yet, on Mr. Dunne's theory, unless there were such an observer, there would be no observer at all. (iii) I cannot find in *An Experiment with Time* any conclusive reason for Mr. Dunne's first proposition. The process starts, as we have seen, with Hinton's suggestion of replacing moving particles by stationary sinuous (1,4)-folds and a (3,4)-fold field of observation moving uniformly along a fourth spatial axis. This is an interesting and ingenious suggestion, and it has the positive merit of introducing a unity and simplicity into the phenomena of motion which is otherwise lacking. But I can see no trace of logical necessity about it. And, if there is no logical necessity to take the first step, there can

be no logical necessity to take the second or any subsequent step in the series. The second step does not even have the merit of introducing additional unity and simplicity. If it is justifiable at all, it is justifiable *only* on the empirical ground that there are cases of Precognition and that they can be explained by taking the second step and not otherwise. So far as I know, there are no empirical grounds for taking a third step. In his later book, *The Serial Universe*, Mr. Dunne infers the necessity of an endless regress from the movement of "presentness" along the series of events in time. The regress to which this seems to lead is used by McTaggart as the basis of his argument against the reality of time; and, if it does lead to this regress, McTaggart's conclusion is the right one. (iv) I agree with Mr. Dunne's second proposition. At Stage II we do get the formal outline of a possible explanation of Precognition, though, as I have tried to show, it is not very easy to put a concrete interpretation on the various elements in the formal theory.

SUBSTANCE

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In the *Metaphysics* (IV. 8), Aristotle examines the various meanings of οὐσία, and concludes that its proper and primary meaning is "that which has predicates and is not predicated of anything else." My aim in this paper is to accept this as an account of the notion of "substance," and to free it from confusion with other notions, and then to consider whether when it is thus freed any "problem of substance" remains. I shall illustrate from the classical treatments of the subject both the confusions and the development of a clearer view because it has seemed to me that exposition and criticism of those authorities sometimes show the same obscurities as the authorities themselves.

The first and most obvious confusion is that between substance and matter. Berkeley in his great polemics was attacking not the idea of substance but that of matter or "body." He was a firm believer in the reality of substances, but substances of one kind only—spirits. He himself is not always clear on this point and in several places[1] he attacks the idea of substance itself without realizing that his attack, if it succeeded, would undermine his own philosophy as much as it would that of his enemies, the "mathematicians." Not only Berkeley, but Leibniz also and more recently McTaggart have believed that the world consisted of substances with their qualities and relations, but that these substances were spiritual or immaterial.

The second confusion is that between being a substance and being independent of other things. Spinoza, for example, defined a substance as that which was independent of all else, "*causa sui*."[2] More often the qualification is held in a narrower form; whatever is a substance may depend on other things, but must be independent of the observer's mind. But there is no logical difficulty in believing that some substances depend for their qualities or even for their existence on the nature of other substances. This dependence would imperil their status as substances only if we identified the relation of cause and effect with that of substance and attribute. This number of *Philosophy* is not a predicate of me, though it owes some of its characteristics to my behaviour, and the fact that St. Paul's Cathedral was not *causa sui* need not make it an attribute of Sir Christopher Wren. This confusion is especially tempting when the dependence

[1] E.g. *Principles* I, 16 (*Works*, ed. Campbell Fraser. Oxford, 1901, I, p. 266). *Dialogue* I (*Works* I, p. 408), and see below, p. 197. [2] *Ethics*, I, def. 3.

in question is dependence on the human mind. When I look at the setting sun for a few seconds and then look away at a white wall I see a circular green patch. Now most people, even if they would consent to regard *Philosophy* or St. Paul's as a substance, would think it queer to call the green patch a substance. Yet if we are to follow Aristotle and maintain that anything is a substance which has qualities and relations and is not itself a quality or relation, then the "after-image" is certainly a substance. For it has at least two qualities, greenness and circularity, and it stands in relations to the self which perceives it and to the white background against which it is perceived. It is certainly itself neither a quality nor a relation. No doubt it would never have existed if I had not looked at the sun, and if I close my eyes it will change or vanish, and "there is nothing on the wall all the time," and for all these reasons the green patch would not be called a substance. For the same reasons Shakespeare's "pageant" was "insubstantial," and you would refuse the status of substance to the pink rats which infest text-books on perception, or to the palaces of last night's dream.

Now all this may appear a battle about words, but misuse of words may often blur real distinctions. Just as I found occasional confusion in Berkeley between "substance" and "body," so I have found some difficulties in discussion of perception directly due to a suppressed belief that sense-data must be attributes of that on which they depend. Here again we may illustrate from Berkeley. He would certainly have accepted my description of his philosophy as maintaining that the universe contained substances of one kind only. Yet he could not accept this without also holding that ideas are parts or states of the mind, as Descartes believed. On this view of the status of sense-data when I perceive an after-image my mind becomes green and circular. Berkeley, however, explicitly guards against this interpretation:

"*Hylas:* Explain to me now, O Philonous! how it is possible there should be room for all those trees and houses to exist in your mind. Can extended things be contained in that which is unextended? Or, are we to imagine impressions made on a thing void of all solidity? You cannot say objects are in your mind, as books in your study: or that things are imprinted on it, as the figure of a seal upon wax. In what sense, therefore, are we to understand those expressions?

"*Philonous:* Look you, Hylas, when I speak of objects as existing in the mind, or imprinted on the senses, I would not be understood in the gross literal sense; as when bodies are said to exist in a place, or a seal to make an impression upon wax. My meaning is only that the mind comprehends or perceives them; and that it is affected from without by some being distinct from itself."[1]

[1] *Dialogue* III (*Works*, I, p. 470).

And Philonous adds: "Besides spirits, all you conceive are ideas, and the existence of these I do not deny." Our account of his philosophy was therefore inaccurate. He believed in substances of two kinds—minds and ideas; everything in the world either was a mind or depended on a mind for its nature and existence.

The third confusion I wish to consider is that between being a substance and being permanent or enduring. Hume, for instance, took himself to be attacking the notion of substance when he raised questions about the continued identity of a ship or a self through its different states or appearances. But like Berkeley he was not really attacking substance. He was accepting and defending substances of one kind and rejecting those of another. The substances he accepted he called ideas and impressions. With Berkeley he rejected matter. Against Berkeley, he rejected spirit. But his impressions have qualities, colour for example, and relations of temporal sequence to other impressions. They were not permanent but brief and fleeting. More recently Whitehead, in *The Concept of Nature*, claimed to be attacking the notion of substance as it has come down to us from Aristotle, when he was really attacking the notion of a permanent independent physical object as it has come to us from the Greek atomists. He really accepts and defends the Aristotelian conception of substance, and shows this clearly at the end of his discussion. "If we are to find substance anywhere we must find it in the events which are the ultimate substance of nature."[1] He, like Berkeley and Hume, believes that the Universe consists of substances, but he has his own special view about the kinds of substances there are and how far they are dependent on each other. Of all the discussions of substance which I have read, only those in the works of McTaggart and W. E. Johnson seem entirely free from the confusions indicated, and from others in which the concept is often involved. McTaggart points out that when substance is used strictly in this sense, then odd results follow: "A sneeze, a party at whist, the group of all red-haired Archdeacons, all are substances."[2] But such results as this are not unusual when accuracy is maintained, and its absence usually produces gaps and problems somewhere else. When you use "fish" accurately, then a whale is not a fish, and if you persist in calling chalk "cheese," then you will ultimately want another name for cheese. Therefore, when I ask about anything, "Is it a substance?" I mean, "Has it qualities and relations without being itself a quality or a relation?" I do not mean "Has it mass or inertia?" nor "Is it independent of the observer's mind?" nor "Is it permanent through change?"

Kant's treatment of the problem illustrates the points I have

[1] *The Concept of Nature*, p. 19.

[2] *The Nature of Existence*, II, vi (vol. i, p. 73).

made above. He holds that substance is a category, a principle essential for the organization of our manifold data of experience into an intelligible order. In a special section of the *Kritik of Pure Reason*, the First Analogy, he gives a proof of his position. But both in the heading of that section and in the argument itself two of the three confusions discussed above may be found. The heading runs: "In all changes of phenomena substance is permanent and the quantum thereof in nature is neither diminished nor increased." The reference to a "quantum" here and again in the illustration during the argument (where the category is shown to be employed in the discovery of the weight of smoke by subtracting the weight of the ashes from the weight of the coal) both show the confusion between substance and matter, and the rest of the argument shows the confusion between being a substance and being permanent. Kant should have distinguished in his own terminology and according to his own definitions, between substance which is a "category," permanent substance which is a "schema," and "material substance" which is an "empirical concept." He should have argued that the notion of substance is essential for any judgment whatever, that the notion of permanence is essential for experience of change in time and that the concept of a material whose quantum is constant is no more than a temporary hypothesis of the physicist.

It may be thought that if greater accuracy in terminology is needed, "substance" should be used of the *permanent* features in our experiences. In this usage substances would form only a small class of those entities which have qualities and stand in relations. I have rejected this usage for two reasons. First, because the classic "source" for discussions of substance in English is Locke's *Essay* (II, xxiii), and the origin of all these problems is Aristotle's analysis (referred to above), and in neither place is there any reference to permanence. Secondly, if substance is used in the narrower sense to connote permanence, it is difficult to find a less misleading term for the wider sense. "Individual" or "particular" have been suggested. "Individual," however, in ordinary usage connotes human personality even more inevitably than substance connotes permanence. It is true that if I asked: "How many substances are there in the room?" I should probably receive as an answer a number which did not include the sneeze and the party at whist. But it is equally certain that if I asked: "How many individuals are there in the room?" I should be told a number which would not include the tallboy and the ottoman. "Particular," which is the more common alternative,[1] may mean "fully determinate." For instance, we speak of a particular shade or shape; the phrase "Particular reds" may as readily stand for the species of

[1] Russell: *Proceedings of the Aristotelian Society*, 1911, and Ramsey, *Mind*, N.S. vol. xxxv.

red—vermilion, crimson, etc., as for the substances possessing the quality, the pillar-box and the revolutionary. Moreover, while "particular" indicates well enough the status of a thing in respect of its qualities, it is quite inappropriate in respect of its relations. Macbeth can be called a "particular" of ambition, but there is no reason for calling him "particular" in reference to his relations with Duncan or Macduff. Any attempt to justify this usage by treating relations as qualities or universals rest on a confusion between the relatedness (being the subject of) which is a universal, and the relatedness to Duncan which is as peculiar to Macbeth and therefore as "particular" as anything about him.

I intend therefore to retain this general usage of "substance" as meaning that which has qualities and stands in relations, but is not itself a quality or relation. When "substance" is thus used it is doubtful whether there is any "problem of substance." The only discussion of such a problem which I have found in the philosophical classics is the controversy between Locke and Stillingfleet, Bishop of Worcester, which, as it is not readily accessible, and has never been completely reprinted, I shall summarize.

Locke attempts in the *Essay on the Human Understanding* to give a complete analysis of human experience, and to trace all its constituents to their sources. He maintains that any idea I have, however complex, may be analysed into simple ideas, and that each simple idea is directly presented to the mind either in sensation or in introspection (which Locke calls "reflection"[1]). The idea of substance causes him trouble. He says in describing its origin: "The mind takes notice that a number of simple ideas go constantly together, . . . which, being presumed to belong to one thing are called so united in one subject by one name, . . . because . . . not imagining how these simple ideas can subsist by themselves, we accustom ourselves to suppose some substratum wherein they do exist . . . which therefore we call substance."[2] From this talk of repetition and custom it appears that Locke's theory was that we observe a group of qualities, frequently repeated, and this gives rise to a habit of associating them together, and this finally to the idea that they belong to one thing—to the idea of substance. Stillingfleet insisted, on the contrary, that the idea of substance was required by logical necessity and implied by the idea of any single quality. "It is a Repugnancy to our first conceptions of things that modes or accidents should subsist by themselves, and therefore the Rational Idea of Substance is one of the first and most natural Ideas in our

[1] It is fundamentally important that "reflection" in Locke does not mean reasoning. It is a type of experience as immediate and direct as sight or hearing. It is by "reflection" that we are aware of anger, fear, and sorrow.

[2] *Essay*, II, vol. xxiii, p. 1.

minds."[1] If we can recognize a logical necessity in the implication of substance with quality, then custom and repetition are irrelevant. We need no more repeat an experience of a quality to acquire an idea of substance than we need to repeat a geometrical proposition in order to understand its necessity. And conversely, if repetition and custom are essential for the formation of the idea, then no single experience taken by itself can give rise to it. It is fair to say that much of Locke's original chapter asserts the theory of logical necessity; "not imagining how these simple ideas can subsist by themselves," for instance. It is to this alternative that Stillingfleet finally drives him. He gives up custom and repetition, and agrees that one experience of a single quality will compel the mind to achieve the idea of substance. "As long as there is any simple idea or sensible quality left, . . . substance cannot be discarded, because all simple ideas, all sensible qualities carry with them a supposition of a substratum to exist in and of a substance wherein they inhere."[2] Here at any rate is a clear position, and Locke's reluctance to occupy it in the face of Stillingfleet's relentless and ineluctable criticism is due to the threat which it offers to his whole philosophy of experience. For the idea of substance appears inevitably as a simple idea, and yet one which is not derived from either of the two sources to which Locke attributed all simple ideas, sensation and introspection. Stillingfleet drives this point home. "I do not say we can have a clear idea of substance either by sensation or reflection, but from hence I argue that this is a very insufficient distribution of the Ideas necessary to reason. . . . If it (i.e. the Idea of substance) be grounded upon plain and evident Reason, then we must allow an Idea which comes not in by Sensation or Reflection."[3] Locke makes a further attempt to evade this unwelcome conclusion. He tries to show that the idea of substance is a complex idea whose constituents can be derived from his two original sources. It is "made up of the general idea of something or being, with the relation of a support to accidents."[4] This is doubly impossible. "Being" is as Locke admits common to all ideas, and if it is an idea no ideas are simple. And "a support" is not a relation; it is a term in a relation. So Locke's alternative explanation that substance is a relative idea or an idea of relation fails also. It rests on the ambiguity of the word "relation." "My relations" may be either the ways in which I am related to others, fraternity, avuncularity, or they may be those to whom I am related, my brothers and nieces. Substance, therefore, is neither a complex idea nor an idea of relation. It arises, as Stillingfleet insists, neither from compounding nor from comparing two ideas,

[1] *Vindication of the Trinity*, Ch. x. (*Works*, 1710, III, p. 504).
[2] Locke: *A Letter to the Bishop of Worcester* (*Works*, 1823, IV, p. 7).
[3] Stillingfleet: *Works*, III, p. 504.
[4] Locke: *A Letter to the Bishop of Worcester* (*Works*, 1823, IV, p. 19).

but "from supposing one Idea from another."[1] It cannot be a complex idea, for the constituents would have to be qualities, and "I cannot understand how a Complex Idea of Accidents should make an Idea of Substance. . . . How could a complication of Simple Ideas which cannot subsist by themselves make an Idea of a substance which doth subsist by itself."[2] Having disposed of this last attempt, Stillingfleet, with some justice, asks whether he himself "deserves so much to be complained of for exposing the unreasonableness of laying the Foundation of all our certainty and Knowledge upon Simple Ideas which we receive by Sensation or Reflection."[3]

The result, then, of the controversy is that Locke is compelled to admit the need of an idea, which is implied by every idea of sensation or reflection, but is not itself an idea of sensation or reflection, and that the source of this idea is not custom or repetition but intelligible necessity. Groups of qualities need not be repeated that we should come to posit a substance to support them. Nor need qualities even be grouped together. A single quality imposes the necessity as clearly as does a group, whether occurring or recurring. Locke originally thought the repeated groupings were necessary because he did not distinguish between how we come to be aware of substance in general and how we come to our knowledge of particular substances. My idea of an orange may well be acquired by observing that certain qualities go constantly together, so that after several repetitions, when I observe the specific colour and texture I shall expect the specific taste which I have observed as their regular concomitant. When I ask, "What is that black thing?" I am asserting necessity as well as ignorance—the general idea of substance is as clearly implied in my question as in any answer to it. Locke's last remedy is to say that the general idea is obscure, confused, or unknown. "A philosopher that says that which supports accidents is something he-knows-not-what; and a countryman who says, the foundation of the church at Haarlem is supported by something he-knows-not-what; and a child that stands in the dark upon his mother's muff, and says he stands upon something he-knows-not-what; in this respect talk all three alike. But if the countryman knows that the foundation of the church at Haarlem is supported by a rock as the houses about Bristol are; or by gravel as the houses about London are; or by wooden piles as the houses in Amsterdam are; it is then plain that, having a clear and distinct idea of the thing that supports the church, he does not talk of this matter as a child, nor will he of the support of accidents, when he has a clearer and most distinct idea of it, than that it is barely something."[4]

[1] Stillingfleet: *Answer to Mr. Locke's Letter* (*Works*, III, p. 523).

[2] *Ibid.*, p. 524. [3] *Ibid.*, p. 528.

[4] Locke: *A Letter to the Bishop of Worcester* (*Works*, 1823, IV, p. 10, and cf. IV, pp. 450–453).

But the idea is really clear, distinct, and perfect. It is completely defined by Locke himself as "that which is a support for accidents and relations." What is unknown is, as we saw above, the determinate species of substance, rock, gravel, piles, muff. I may know quite clearly what "substance" means without knowing what song the Sirens sang or what supports the church at Haarlem. Locke, however, seems to be maintaining not only that this particular substance is unknown because I know of it no more than its relation to the church, but also that even if I knew all its qualities and relations I should still be no nearer to knowledge of the substance itself. He thinks of a substance as something lurking behind its qualities, and not revealed in them. He calls it the idea of "something I-know-not-what," without seeing that if he knew *what* it was he would know only a further quality or qualities. His mistake here is due to two of those confusions described above. He thinks he knows nothing of the "substance" of a piece of gold because he does not know those of its characteristics which are independent of perception, nor does he know "the minute constitution of its insensible parts." But the relational characteristics of an object are genuine characteristics of it, as we insisted above, and there is no reason to prefer microscopic to macroscopic qualities.

Criticism and self-criticism of Locke thus reveal substance as a category, an idea required as a correlate of the qualities given to sensation and introspection. I think this would be the orthodox theory even now, and that heterodoxy would depart from it by dispensing with the notion of substance altogether and identifying a thing with the group of its qualities, or with the law of their occurrence. Berkeley holds this theory with regard to physical objects. "If *substance* be taken in the vulgar sense for a combination of qualities such as extension, solidity, weight, and the like . . . this we cannot be accused of taking away; but if it be taken in the philosophic sense for the support of accidents or quantities without the mind, then I acknowledge that we take it away."[1] He claims to be retaining what the senses give us and what any man can observe for himself (the group of qualities) and discarding what is merely metaphysical mythology (the substratum). But once again the insertion of the words "without the mind" show that he is not certain whether he is attacking the idea of substance or the idea of an independent reality. The Commonplace Book is clearer. "Ask any man not tainted with their jargon what he means by corporeal substance. He shall answer, bulk, solidity, and such like sensible qualitys. These I retain. The philosophic *nec quid nec quantum nec quale* whereof I have no idea I discard."[2] Hume agrees in the rejection of substance and the group substitute for it: "We have

[1] *Principles*, I, 37 (*Works*, I, p. 277).

[2] *Works*, I, p. 20.

no idea of substance distinct from that of a collection of particular qualities, nor have we any other meaning when we talk or reason concerning it."[1]

For a defence of the orthodox position, that of Stillingfleet and Kant, that the idea of substance is necessary and the group of qualities no adequate substitute for it, I would refer again to McTaggart's treatment.[2] But I shall not discuss this issue further, for I believe both orthodoxy and heterodoxy rest here on an error which they share. They both assume that qualities are directly and immediately given but that substance is not. But surely the datum of touch is not a quality without a substance, not coolness and roughness, but "something-cool-and-rough." When I look at a candle-flame I perceive not yellowness but something yellow. I find it difficult to devise arguments for anything so obvious, and I can do little more than illustrate and clarify the position I defend. When I continue to look at the flame and press one eyeball sideways I see double. But what is it that I see double? not yellowness nor any other quality. There is still the same yellowness but now two "somethings" possessing it, and the "twoness" is given to sight as much as the yellowness. Again in the case of the after-image when I look away from the sun I do not see greenness and also see roundness, I see something-green-and-round. It is not an act of inference or intellect which puts the qualities together and attaches them to a substance. They are given together, and "together" here does not mean any sort of togetherness—not merely simultaneity or presence in the same field of view. Their perceived togetherness is that specific sort which is not further analysable—"belonging to the same substance." I see the greenness and I see the roundness, and I see that what is green is also round as certainly as I see anything whatever, and therefore I see that something is green. What is given to sight, therefore, is substance-with-qualities, and the problem of getting from qualities which are directly given to substance which is not is a mistaken problem altogether. The only recognition of this which I have been able to find in the philosophical classics is in the work of Leibniz. In the *New Essays*, commenting on the passages in Locke's *Essay* which were quoted above, he says: "The knowledge of the concrete always precedes that of the abstract—the hot thing rather than heat."[3] And again, "It is rather the concretum as wise, warm, shining which arises in our mind than the abstractions or qualities as knowledge, heat, light, which are much more difficult to comprehend."[4] Qualities without substance, far from being the

[1] *Treatise on Human Nature*, I, i, 6. (ed. Selby–Bigge, Oxford, 1896, p. 16).
[2] *The Nature of Existence*, I, Ch. vi.
[3] *New Essays*, II, xii. Trans. A. G. Langley (Open Court, 1916), p. 148.
[4] Ibid., II, xxiii. Trans., p. 225.

original data of experience, are apprehensible only after specific and difficult mental operations, if indeed they are separately apprehensible at all.

Why has not this obvious fact been recognized? I think the answer lies once again in those confusions exposed above. My claim is that when I am aware of the after-image, what I perceive is a round, green substance. But anyone hearing this will think it is a much greater claim than it is. They will say, "There is nothing there," as if I had asserted that I directly perceived a physical object independent of my own awareness. But I am asserting only that I am directly aware of the existence of an entity with two qualities, roundness and greenness; whether that same entity has also weight and permanence, whether it is completely enclosed in a continuous surface, whether its greenness or roundness are independent of my eye or brain or mind, all this I do not claim to apprehend directly. Sight certainly does not tell me whether this substance is a physical or material substance or not. The substance which is indubitably round and green may be a state of my mind as Descartes thought, or a physical object as Professor Alexander thinks, or a part of my brain as Russell thought, or something which is no part of mind or brain or matter but inhabits a space of its own as Professor Broad thinks. All that I claim is that the universe contains at that moment something both round and green, and that my awareness of that something with those qualities is direct and certain. The questions which interest philosophers are usually those further questions about the status of this entity, but they presuppose the notion of substance and the certainty that some substances with their qualities are directly apprehended. Another reason for the error common to Locke and his critics is no doubt the fact that while some substances can be directly given to sense—after-images, for instance—others cannot. A legal code, a soul, an electron cannot be seen or heard or tasted, and it is supposed that the existence of these substances is inferred from direct perception of their qualities. But it is not; it is inferred from direct awareness of other substances. For the qualities of these substances are as inaccessible to sensation as the substances themselves. You cannot see a legal code nor can you see its qualities justice and equity. You cannot smell a soul nor can you smell righteousness or salvation. You cannot hear an electron nor can you hear the quality of vibrating at 100,000 to the second.

I have been rejecting so far the view that qualities can be directly apprehended but substances cannot. The only alternative to the view I accept for which I can see any defence is the view that the datum of immediate apprehension is something within which the distinction between substance and quality is not apprehended, and that this

distinction itself with both its correlative concepts requires an act of the intelligence. The "category" then would be not "substance," but "substance and quality." And the datum of sight would contain neither substances nor qualities, but the potentiality of both alike. This is the view of Bradley, and of James Ward. The reason why I reject it is that if the distinction between substance and quality requires an act of the intellect, then *a fortiori* the distinction between one quality and another cannot be directly apprehended, and an act of the intellect will be needed to distinguish between sweet and sour, or between yellow and rough. Bradley and Ward both adopt this conclusion. Bradley's "Feeling" and Ward's "Presentational Continuum" are devoid not only of the distinction between substance and quality, but of all distinctions whatever. But when the attempt to draw a line between mediacy and immediacy leaves to immediacy an apprehension devoid of all distinctions, I should rather conclude that the initial distinction is itself misleading or that it must be differently drawn in the first instance. For to be devoid of all distinctions, to have neither qualities nor relations, is surely not to be at all. Bradley should, therefore, have retraced his steps and taken one of two alternatives. He could have acquiesced in the conclusion I defend that some instances of substance-with-qualities are directly apprehended and some are not. Or he could have given up altogether the distinction between mediate and immediate apprehension, between intellect and feeling, between thought and sense, and held with Hegel that "There is no experience which is not just as much mediate as immediate."[1]

I have said that some instances of substance-and-qualities are directly apprehended, but so far my examples have all been taken from the field of sensation. Are there others? I should hold that minds can be directly apprehended also, that here, too, I can be certain by direct inspection of the existence of a substance with more than one quality. Suppose I feel envious. In that case I do not infer that I am envious from some sense-datum of sight or hearing—it is an experience as direct as sight or hearing itself. But envy is not a simple datum. I may envy Jones because he can fly an aeroplane or understand Kant's *Kritik*. How much in this situation is inferred and dubious, and how much is directly apprehended? I infer that Jones can fly aeroplanes or understand Kant from some sets of noises he has made, and I may be wrong. But I do not infer that I believe he can fly, and I cannot be wrong about that. My believing is indubitable, though Jones's flying may be dubious. Again, it may be irrational to envy a man for such reasons, but the envying is indubitable, though its grounds are dubious. I am certain then of the existence of

[1] Hegel, *Logic*. Trans. Johnston and Struthers, i, 80, and cf. H. H. Joachim's Lecture, "Immediate Experience and Mediation" (Oxford, 1919).

a believing and an envying. I am certain also of the existence of a wish to fly or to understand Kant. Such a wish may be as unreasonable as you please; its existence is all I claim to apprehend directly. But not only am I directly aware of a wishing and a believing and an envying, I am as directly aware that all these three characteristics qualify the same subject. As I was aware that what was green was also round, so here I am directly aware that what believes also wishes, for were it not so envy would be impossible. If Robinson wishes to fly, but does not believe Jones can, then Robinson will not envy Jones. If Smith believes Jones understands Kant, but has not the slightest wish to do so himself, Smith will not envy Jones. But my envy was directly apprehended, therefore so also must be the unity in one self of the wishing and believing which are its necessary conditions.

Once again, when I claim in such a case to be aware of the unity of a self, I am claiming very little. Whether the substance whose wishes and beliefs I directly apprehended has also a past and a future, whether it is brave or foolish or damned or immortal, all this I cannot directly observe. But as before, the minimum allowable for direct awareness is awareness of substance with qualities, not awareness of qualities alone.

The first "problem of substance," then, that of its origin in our experience, I have dealt with. The other that remains is that of the relation of substance to quality. As I pointed out above, Berkeley in an unguarded moment attacks the notion of substance in general on the ground that this relation is unintelligible. He says words like "substratum" or "supporting" accidents indicate a spatial relationship which cannot be intended as it would involve a regress, or they explain nothing.[1]

In Plato's *Parmenides*[2] there is a similar attack on such terms as "sharing" or "resembling," which may be used to describe the relation between substance and quality. To such arguments it is sometimes thought a sufficient answer to insist that the relation is a unique relation and that the use of spatial or quantitative metaphors to describe it is bound to be misleading. On this view, Plato's intention in the *Parmenides* was to insist that the relation is a real and important one, and to warn his readers that it is unique and unanalysable. The solution is to recognize the relation and coin a new name for it.

There may, however, be a more radical attack. Ramsey[3] said he could find no difference in nature between terms like "Socrates" and terms like "wise." He attacked Aristotle's attempt to explain the distinction by referring to the distinction between subject and

[1] *Principles*, I, 16 (*Works*, I, p. 266), cf. *Works*, I, pp. 408–410.
[2] *Parmenides*, 131*a*–133*b*.
[3] *Mind*, N.S., vol. xxxiv.

predicate in the proposition by showing that either Socrates or wisdom may be the subject of a proposition. But this may still be met by holding that the distinction is a metaphysical ultimate and explanations through logic or grammar are as unhelpful as those through space or quantity.

It may, however, be urged that the *Parmenides* has a far deeper significance, that its regress arguments are not in the least escaped by coining new terms for unique relations.[1] For let us name the relation between Socrates and wisdom a relation of "instantiation." If Socrates is wise and Plato is wise, then each is related to wisdom by the relation of instantiation, and anything so related to a number of substances is a quality or universal. Wisdom then is a universal, and has as instances Socrates and Plato. Roundness is a universal, and has as instances the penny and the plate. Wisdom and roundness are both universals. They are therefore both instances of universality. But anything which has instances is a universal. Therefore universality is a universal. Therefore universality is an instance of universality. Now we have two alternatives. If in the last sentence the first "universality" is the name of a term different from that named by the second "universality," then we have an infinite regress and no explanation. If the two names are names for the same term, then we have a term related to itself by a relationship other than that of identity, which is certainly a paradoxical conclusion.

The same result may be reached by another route. Consider the unique relation—instantiation. It, like fatherhood or betweenness, is a relation. All three are therefore instances of relationality. Instantiation is therefore related to relationality by the relation we have named instantiation.

Here again the two "instantiations" in the last sentence indicate different terms or the same term. In the former case we have an infinite regress. In the latter we have a term related to another term by a relation which is one of the terms, which is a paradox. Of the two alternatives in each case, I should hold that the regress must be rejected and the paradox remain, but I agree that the situation is certainly perplexing and threatens the acceptance of the relation as metaphysically ultimate and satisfactory.

The only alleviating circumstances I can suggest are these. First, there are some parallels for the paradox. The relation between doctor and patient, and between barrister and client, are normally asymmetrical, like that between substance and quality. Yet a physician may heal himself and a lawyer appear for himself. Or, again, a man may love himself, know himself, or control himself, though it is true that from the earliest times these relationships also have been felt

[1] I owe the whole of the following working out of the regress argument to Mr. G. Ryle.

to be paradoxical and philosophers have been driven to attempt to explain them by diremptions within the self (into a part which controls and a part which is controlled, etc.) explanations which only explain the situation by explaining it away.[1] For the "real self" is inevitably identified with one of the two parts, and the phenomenon is no longer one of self-love or self-control, but an ordinary instance of control of A by B or love of A by B, with the paradox now quite a different one that A and B should be housed in and express themselves through the same physical organism.

Moreover, if we ask what remedy is to be offered us by those who attack the substance-quality relation, difficulties arise for them too. They would maintain that our mistake lay in supposing a fact to be analysable into two elements, a substance and a quality, and a relation between them, whereas the fact is ultimate and unanalysable. But we still require an explanation of the possibility of using the same term "wise" in describing the two facts as "Socrates is wise" and "Plato is wise," or the same term "Socrates" in describing facts expressed by "Socrates is wise" and "Socrates is just." Russell would take the "class of facts" as ultimate and say these facts have a peculiar relation to each other, that of "particular-resemblance," which justifies our language.[2]

But if universals are rejected because they lead to a regress or a paradox and therefore no universals are real, the same conclusion must hold concerning classes. For the sentences containing the word "wise" describe facts which form a class. But classes also form a class. The class of all classes leads us again to a regress or a paradox, the paradox that while the relation between class and member is normally asymmetrical, the class of all classes is a member of itself. And we must accept the paradox or deny that there are any classes (of facts or of anything else). But if we accept the paradox here we might as well accept it over universals also.

Despite the difficulties, therefore, I am still inclined to maintain the validity of the notion of substance and quality which in this paper I set out to defend. To hold that the universe contains substances (in this wide sense) still seems to me to be a simple and an evident truth, but I hope that I have shown that it is not so simple as to have evaded confusion with many other problems, nor so evident as to have escaped question altogether.

[1] Cf. Plato, *Republic*, 430*e*, on self-control; and Aristotle, *Nicomachean Ethics*, IX, 8, 6, 1068 l. 28, on self-love.

[2] *Principia Mathematica* (Second Edn.), vol. i, Appendix iii.

AN ADDITION TO THE CORRESPONDENCE OF SPINOZA

Professor A. WOLF

Introduction

The Library of the Royal Society of London contains a large collection of manuscript material relating to Henry Oldenburg and his correspondents. Oldenburg was one of the two Secretaries of the Royal Society when it was founded in 1662. For many years he acted as intermediary between British and Continental philosophers and scientists. He also edited the early volumes of the Royal Society's *Philosophical Transactions*. His contacts were accordingly very extensive. Nearly all the seventeenth-century pioneers of science were among his correspondents. In his role of intermediary he was in the habit of sending extracts from some of his foreign letters to such of the Fellows of the Royal Society as were likely to be interested in them. To this practice we owe the survival of part of a letter from Spinoza which is published here, for the first time, in facsimile, in transcript and in translation. It occurs in a letter to Sir Robert Moray, dated October 7, 1665 (R.S. Library Reference, No. O.I. 17). Another part of the same letter from Spinoza, and published long ago, has survived in a similar way, namely, as an extract in a letter from Oldenburg to the Hon. Robert Boyle (see the writer's edition of *The Correspondence of Spinoza*, Letter XXX, pp. 205 f., and 418 f.). It is quite possible that other Spinoza fragments may yet come to light, if those working on seventeenth-century material will exercise some vigilance. I am indebted to Dr. J. Olsvanger for directing my attention to Oldenburg's letter to Sir Robert Moray, which Dr. Olsvanger came across while searching for material relating to Manasseh ben Israel, a letter from whom is actually contained in Oldenburg's Commonplace Book. Since November 1929, when I first saw the unpublished part of Spinoza's Letter XXX, I have searched from time to time for more, but in vain. It may therefore be as well to publish it without further delay.

It will be noted that, in his letter to Sir Robert Moray, Oldenburg does not mention Spinoza by name. There is, however, no doubt at all that the "odd Philosopher, living in Holland but no Hollander," was no other than Spinoza. The evidence on this point is quite

conclusive. Oldenburg's letter is dated October 7, 1665, and the passage cited from the letter of the "odd Philosopher" answers the very questions which Oldenburg had asked in his letter sent to Spinoza in September 1665. In this letter Oldenburg complains that "Kircher's *Subterranean World* has not yet appeared in our English world," and asked, "What, I pray you, do your people think of the pendulum of Huygens, especially of that kind which is said to show the measure of time so exactly that it can be used for finding out longitudes at sea? Also what is happening about his Dioptrics, and his Treatise on Motion, both of which I have been expecting for a long time already" (*The Correspondence of Spinoza*, pp. 203–5). These are the very points dealt with in the extract before us. Moreover, in his letter to Robert Boyle, which contains another extract from the same letter, Oldenburg states explicitly that the letter from which he quotes was written by Spinoza, and that he (Oldenburg) had quoted another part of it in a communication to Sir Robert Moray; and his brief indication of its subject-matter closely agrees with the contents of the fragment now published. This is what Oldenburg wrote to Boyle: "In the same letter to Sir Robert I took notice to him of what a certain odd philosopher (whom you know better than he, it being Signior Spinoza) hath very lately written to me concerning Mr. Huygens' transmigration into France, his pendulums and his progress in dioptrics, etc." (*The Correspondence of Spinoza*, p. 418). The repetition of the epithet "odd Philosopher" is additional evidence. Moreover, Oldenburg's letter to Spinoza dated October 12, 1665 (see *The Correspondence of Spinoza*, Letter XXXI, pp. 206–9) is clearly a reply to the present fragment.

Even with the present fragment, Letter XXX is not yet complete. The facsimile shows that Oldenburg was on the point of quoting more, but crossed out the first word of the next sentence (*Sentio*), and stopped. However, so far as one can judge from Oldenburg's Letters XXIX and XXXI, it seems probable that comparatively little is missing from Spinoza's Letter XXX. Oldenburg's two Letters (XXIX and XXXI) also make it clear that the present fragment formed the first portion of Letter XXX, and was followed by the part already published.

With regard to the contents of the fragment published here, information relating to the men and matters referred to in it is contained partly in my edition of *The Correspondence of Spinoza* (1928) and partly in my *History of Science, Technology, and Philosophy in the Sixteenth and Seventeenth Centuries* (1935), so that it is unnecessary to add anything here on that score.

Transcript of Letter from Oldenburg to Sir Robert Moray

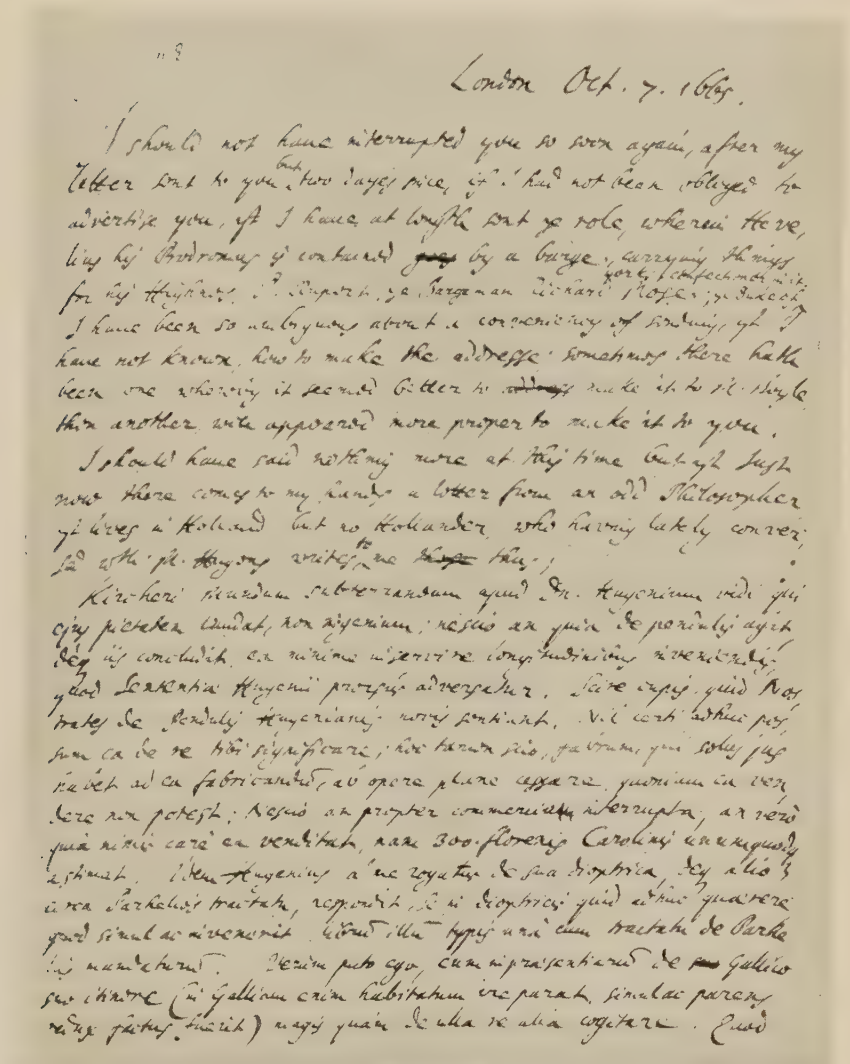
London, *October* 7, 1665.

I should not have interrupted you so soon again, after my letter sent to you but two dayes since, if I had not been obliged to advertise you that I have at length sent the role, wherein Hevelius his Prodromus is contained, by a barge carrying things for his Highness, P. Rupert, the Bargeman Richard Mose, the Duke of York's confectioner in it. I have been so ambiguous about a conveniency of sending, that I have not known how to make the addresse; sometimes there hath been one, whereby it seemed better to make it to M. Boyle, then another, w[h]en [it] appeared more proper to make it to you.

I should have said nothing more at this time, but that just now there comes to my hands a letter from an odd Philosopher, that lives in Holland, but no Hollander, who having lately conversed with M. Hugens writes to me thus:

Kircheri Mundum Subterraneum apud Dn. Hugenium vidi, qui ejus pietatem laudat, non ingenium; nescio an quia de pendulis agit, deque iis concludit, ea minime inservire longitudinibus inveniendis, quod sententia Hugenii prorsus adversatur. Scire cupis, quid Nostrates de Pendulis Hugenianis novis sentiunt. Nil certi adhuc possum ea de re tibi significare; hoc tamen scio, fabrum, qui solus jus habet ad ea fabricandum, ab opere plane cessare, quoniam ea vendere non potest: Nescio, an propter commercia interrupta, an vero quia nimis care ea venditat, nam 300 florenis Carolinis unumquodque aestimat. Idem Hugenius a me rogatus de sua dioptrica, deque alio circa Parhelios tractatu, respondit se in dioptricis quid adhuc quaerere quod simul ac invenerit librum illum typis una cum tractatu de Parheliis mandaturum. Verum puto ego, eum in praesentiarum de Gallico suo itinere (in Galliam enim habitatum ire parat, simul ac parens redux factus fuerit) magis quam de ulla re alia cogitare. Quod vero in Dioptricis ait se quaerere, est, Num vitra in Telescopiis ordinare ita possit ut defectus unius, defectum alterius corrigat, atque ita efficere, ut omnes radii paralleli vitrum objectivum permeantes ad oculum perveniant tanquam si in puncto mathemetico coiissent: quod mihi adhuc videtur impossibile. Caeterum, in tota sua dioptrica, ut partim vidi, partim ab ipso, ni fallor, intellexi, non nisi de figuris sphaericis agit. Tractatum vero de motu, de quo etiam sciscitaris, frustra exspectari puto. Nimis dudum factum est, ex quo jactare coepit, se regulas motus et naturae leges calculo longe aliter invenisse, quam a Cartesio traduntur, illasque Cartesii falsas fere omnes esse: Nec tamen huc usque ullum ea de re specimen edidit. Scio, quidem, me, ante annum circiter, ab eo audivisse, omnia quae ipse dudum circa motum calculo

FACSIMILE OF OLDENBURG'S LETTER TO
SIR ROBERT MORAY



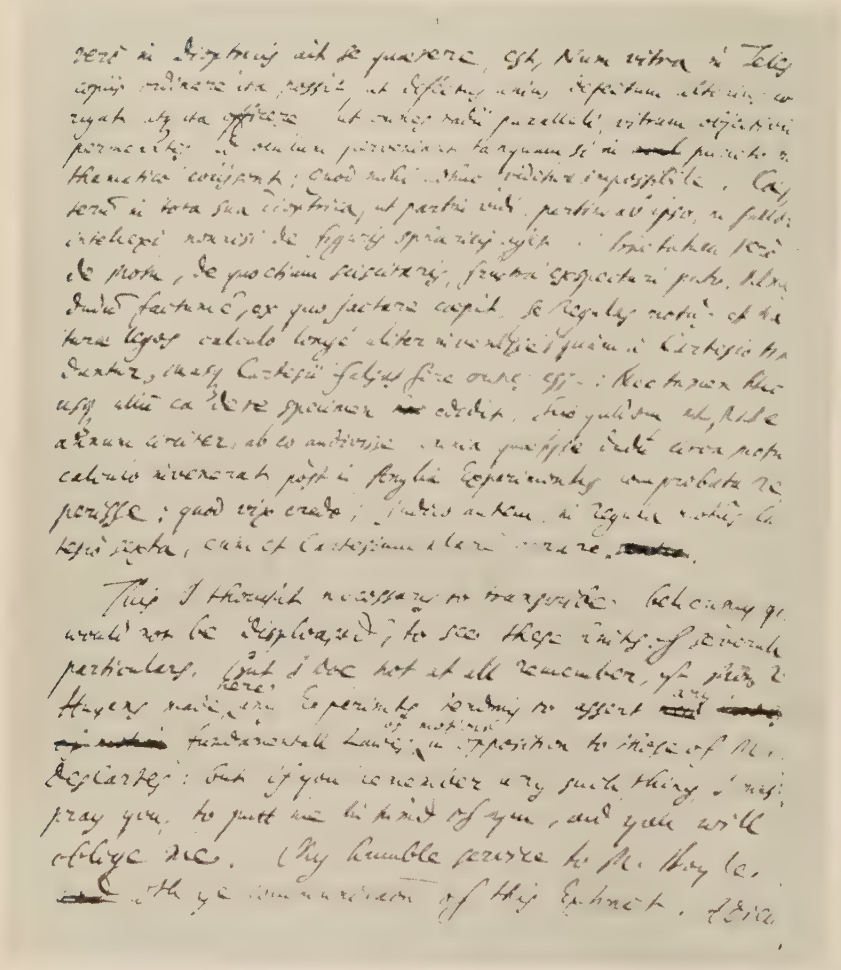
London Oct. 7. 1665.

I should not have interrupted you so soon again, after my
letter sent to you, two dayes since, if I had not been obliged to
advertise you, yt I have at length sent ye role, wherein there
lies by Bodrowns yt contained [illegible] by a barge, carrying things
for ye Embassy. I suppose, ye Sargeant Bearer [illegible] ye Packet
I have been so unhappy about a conveniency of sending, yt I
have not known, how to make the address: somethings there hath
been one wherein it seemed better to [illegible] make it to yt: whyle
then another was appointed more proper to make it to you.

I should have said nothing more at this time, but yt just
now there came to my hands a letter from an old Philosopher
yt lives in Holland but no Hollander, who having lately conver-
sed with yt. pt. Hugens writes to me [illegible] thus:

Kircherj librum recens editum quod Dn. Huygenius vidi qui
ejus pleraque capita, non ejus rationes, recensuit ac quia de parabolis agit
deq; iis conclusit, ea ratione inveniri longitudines generales;
quod Leibnitius Huygenii principia adversetur. Sane cupio quid Vir
tanto de Mundi Huygeniani novi portenti. Vix certe adhuc post
eum ea de re libri plenissime, nec locum pro, quorum quisq; suos
habet ad ea fabricanda, ad opera plane egregia, quorum ea ver
bere non potest: Neque ea propter commercium interruptum, ac nero
quia nihil care ea vendebat, nam 300 florenis Carolinis emungendis
aptum. Idem Huygenius a me rogatus de sua dioptrica, deq; alio
a me Parisiis tractato, respondit, se ni dioptrici quid adhuc quaerere
quod simul ac inveniret, [illegible] typis una cum tractatu de Parhe
lijs mandaturus. Verum puto ego, cum ni praesertim de [illegible] Galileo
per Italos (ni Galileum cum habitatum ire parat, simulac pareat
redux patriae tuetur) nugis quam de alia re alia cogitare. Quod

FACSIMILE OF OLDENBURG'S LETTER TO
SIR ROBERT MORAY



invenerat, post in Anglia experimentis comprobata reperisse: quod vix credo; judico autem, in regula motus, Cartesio sexta, eum et Cartesium plane errare.

This I thought necessary to transcribe, believing you would not be displeased to see these hints of severall particulars. But I doe not at all remember that Mons^r^ Hugens made here any experiments tending to assert any fundamentall Lawes of motion in opposition to those of M. Descartes: but if you remember any such thing, I must pray you, to putt me in mind of them, and you will oblige me. My humble service to M. Boyle with the communication of this extract. Adieu.

Translation of the Spinoza Fragment

I have seen Kircher's *Subterranean World* at the house of Mr. Huygens, who praises his piety, but not his ability. I do not know whether this is because he [Kircher] treats of pendulums and concludes that they are of very little use for determining longitudes, which is quite contrary to the view of Huygens. You want to know what our people think about the new pendulums of Huygens. I am not yet able to communicate anything definite about this matter. This, however, I do know, that the workman who alone has the right to manufacture them is giving up this work altogether, because he cannot sell them. I do not know whether this is due to the interruptions in our intercourse [with other countries], or because he is trying to sell them at too high a price, for he prices them at 300 Caroline florins each. The same Huygens, when I asked him about his *Dioptric* and his other treatise on Parhelions, replied that he was still investigating something in dioptrics, and that as soon as he discovers it he will send the book to the press together with the treatise on Parhelions. But for my part I think that his mind is at present more occupied with his French journey (for he is preparing to go to live in France as soon as his father is back) than with anything else. However, what he says he is investigating in dioptrics is, whether he can so arrange the glasses in Telescopes that the defect of one of them may correct the defect of the other, and so bring it about that all the parallel rays penetrating the object-glass may reach the eye as though they had converged in a mathematical point. This still seems to me impossible. For the rest, in his whole *Dioptric*, as I have partly seen, and partly, unless I am mistaken, gathered from him, he is treating of spherical figures only. As regards his treatise on motion, about which you also want to know, I think that it is idle to expect it. It is so long since he began to boast that he had discovered laws of motion and [other] laws of nature by calculations quite different from those given by

Descartes, and that Descartes' laws are nearly all false; yet up to the present he has given no proof of this. I know, indeed, that about a year ago I heard from him that all that he had formerly discovered about motion by calculation he had subsequently found verified by experiments in England. This I scarcely believe. I think, moreover, that as regards the law of motion, which is given by Descartes as the sixth law, both he [Huygens] and Descartes are quite mistaken.

THE OBJECTIVE VALIDITY OF THE PRINCIPLE OF CONTRADICTION.[1]

EDWARD CONZE, Ph.D.

I. The Problem and its Justification

The present essay is intended as a contribution to the investigation of the relations between the theoretical and the practical life of man. It makes the attempt to show that our assumption or rejection of even the highest and most abstract law of thought and reality is based on and rooted in our practical attitude towards the world. It tries to show that even the principle of contradiction (P.C.) owes its validity or non-validity to decisions made by the practical and emotional part of man, and that the objective validity of the P.C. is not absolute, but that it is relative to the practical and emotional attitude you choose to assume.

First leaving on one side the question, what the P.C. exactly means and in which sense we speak of its "validity," we must show at the very outset of this essay in what sense the P.C. can be at all a subject-matter for discussion. How can the P.C. be a matter of any earnest discussion, since it is generally considered to be beyond all discussion? In what sense can it afford a problem, since it seems to be an indubitable and undeniable truth? But, on the other hand, whether the P.C. *can* be denied or not, it *has* been denied in the course of the history of human thinking. Aristotle, in his still unsurpassed and valid discussion of the P.C. in the third book of the *Metaphysics* maintains that practically *all* his predecessors *denied* the P.C. Later on we find that eminent thinkers like Nicholas of Cusa, Hegel, Bostroem, Bradley, and others in Europe, the Taoists in China, the Madhyamikas in India denied the validity of the P.C. in one way or another. Lévy-Bruhl made at least an attempt to show that the P.C. is not observed by "primitive" mentality. Svend Ranulf demonstrated the same for the Eleatic methods of thinking. How can these historical facts be reconciled with the assumption of logicians that the P.C. is beyond all doubt and dispute? Is it possible to account for these deviators from the P.C. with an impatient wave of the hand, assuming that these thinkers have been utterly wrong, unable to grasp the fundamental condition of all thinking about realities? Or how is this radical difference of opinion to be reconciled?

[1] Throughout this article for "principle of contradiction" the abbreviation "P.C." is used.

Perhaps it may be useful in this dilemma to examine the reasons on which Aristotle and all his direct or indirect disciples based their claim that the P.C. must be considered as a principle standing high above all dispute.

First it has been said that the P.C. can neither be proved nor refuted because it is *self-evident*. A truth is considered to be self-evident if it is immediately, that is without the intervention of any proof or deduction, perceived by reason to be indubitably true and known by itself. It is not difficult to see that no mere psychic state of belief, be it as unshaken as it may, can be sufficient to assure us of the fact that we are in immediate touch with truth and reality as such. Unfortunately a wrong idea may be as self-evident as a true one. So many "self-evident" propositions have been shattered in the history of human thought that alleged "self-evidence" cannot be considered to be any ultimate guarantee of truth. Recourse to it cannot exclude the discussion of a problem. "Self-evidence" of a proposition can never exclude the possibility that a more satisfactory self-evident proposition about the same object may arise. Just the *substitution* of self-evident propositions for each other forms one of the main elements of the development of human thought.

More serious is the second contention: the P.C. cannot be proved or refuted, being the unspoken *condition* of all proof, in this sense, that if it is denied, all proof is denied. Even those who deny the P.C. confirm it by denying it, for they assume denial not to be the same as affirmation, else they would take no pains to deny it. This argumentation in fact excludes the possibility of a complete denial of the P.C. But it leaves open the possibility of *limiting* the *extent* of the validity of the P.C. It leaves open the possibility that not *all* objects may be on the same level as regards the P.C. Let us now call A the class of things for which the P.C. is valid and let us call B the class of things for which it is not valid. Then A may be *sub-ordinated* to B. Under the assumption of different degrees of truth the lower degrees may observe the P.C., but not the higher. The P.C. would be the necessary condition of all arguments concerning A, but it would be abolished at the threshold of B, although leading to it. So for the German romantics (Novalis, Schlegel, etc.), for Schelling and Hegel the P.C. is observed only by the lower logic of the *Verstand*, whereas the higher logic of speculative reason rejects it. In a similar spirit, Nicholas of Cusa declared four hundred years earlier that the P.C. is the first principle only of the lower discursive reason, "limited by the contradictories," i.e. of the first step towards truth, but it has no validity for the higher, truer, and infinite faculty, for the "most simple and detached" faculty of the *docta ignorantia*, of the *intellectio videntium*. Besides, there exists another possibility: A and B can be *co-ordinated*; for one part of the world the

P.C. may be valid, but not for another; human thought, which surveys them both, may then belong to that part for which the P.C. is valid.

The two lines of argument mentioned above attempted simply to exclude any discussion about the validity of the P.C. This is not the case with other more modern forms of argument, which regard the P.C. either as an outcome of the generalization of the data of *experience* or as the necessary condition of all fruitful *practical* behaviour. This nominalistic and pragmatistic "proof" of the P.C. can never exclude *a priori* the possibility that either new data of experience or that a new fruitful practical attitude may appear, which would exclude the P.C.

II. The Formulation of the P.C.

The P.C. may be stated as the psychological fact that mind or consciousness, owing to their nature and constitution, *cannot* actually judge at the same time that a thing is, and that the same thing is not. But logical theory is not concerned with the question, if in fact the P.C. is thoroughly observed in actual thinking, or if there are exceptions to it. But the logician, in case he should find contradictions in the actual thinking-process, would point out that these are cases of wrong thinking, that they are instances of a thinking which is not quite clear and distinct, that they are cases in which reason has not been able to overcome the obstacles of irrational tendencies, etc. Logical theory assumes the P.C. to be not the principle of all judgment, but of all *true* judgment only.

But what reason can be given for this assumption? *Why* can we call true only reasoning processes which observe the P.C.? I can see only one satisfactory reason for this, namely that the P.C. is also the principle of the *objects* of judgment and reasoning. The P.C. is a principle of true judgment, because it is a principle of objects, of reality. The laws of reality are the fundaments of the laws of the logical mind. We cannot *judge* that the same man is learned and is also not learned at the same time and in relation to the same group of facts, *because* in fact he *is* learned and cannot *be* not learned at the same time and in relation to the same group of facts. The P.C. may be a postulate, as Schiller has put it; but it is a postulate demanded by reality. Else it would be gratuitous and would not concern reality, would not help mind in its proper task, the reflection of reality.[1]

Now, each general law and principle is always concerned only

[1] It is, of course, impossible to discuss here in full the very controversial relations between thinking and being. The assumption that being is at the basis of thinking, although I personally am inclined to deem it correct, need be accepted by the reader only as a convenient working hypothesis.

with *one* feature or property common to a class of things. So also the P.C. is not immediately concerned with all the manifold aspects and qualities of things, i.e. their colour, shape, etc. Being the most general of all laws, covering everything, it must be concerned with a property which is common to everything, which is a common factor in all reality. But this is the property of being as being. We may apply to the P.C. the method of Baconian induction and ask for the reason of its validity. Then the reason for the P.C. must be wherever the P.C. is, must be nowhere where it is not, and must be present always in the degree in which the P.C. is fulfilled. Only being as being accomplishes these three conditions.

Being as being is the primary object of the P.C. So the ultimate statement of the P.C. would be: "Being is not and cannot be non-being"; or "contradictory being, i.e. being which is also non-being, is nothing." All the other formulations which can be given of the P.C., and which I need not enumerate and discuss here in detail, are secondary to, are special cases of this one, for all other "objects" obey the P.C. only because and in so far as they participate in this one identical property, in being. Thus the P.C. can be stated of *real things* and their *attributes*, and it is with this aspect of the P.C. that we are especially concerned in this article. But when we say, e.g.: "a 'thing' cannot at the same time be and not be," or "contradictory attributes exclude each other and cannot coincide in one and the same identical part of a 'thing,' " we apply the categories of being to "things." The same is true for the different ways in which we may state the P.C. for our *judgments* and *thoughts*. They all are valid, because logical thinking participates in and reflects "being." In the case of *human consciousness* it can be shown *in detail* that it observes the P.C. only as far as it assumes the categories of being.[1]

To assume the P.C. to be a principle of general validity means to say that being is the *dominating idea* of all thinking. This statement, which is the starting-point of my further investigations, was first suggested to me by the admirable analysis Rosmini has given of the P.C. It means that being is present as an indispensable element in the interior of all objects of thought and is reflected in all logical judgment. Only the presence of and the implicit relation to the idea of being makes judgment and thinking possible. The data of sensation are transformed into thoughts only when touched by the idea of being. But what is "being"? We can give the definition of "being" only by pointing to its law (the P.C.) and to its *categories*. It may happen that another name is given to this complex of properties, which we called "being," e.g. the name of "spirit." It is essential for the P.C. only that the *categories* of being are an element of the dominating idea, be this called "being" or "spirit."

[1] See E. Conze, *Der Satz vom Widerspruch*, 1932, 4–77.

III. The Concept of Being and the Conditions of the Destruction of the P.C.

(1) *General Survey*

The fundamental property of being, as expressed in the P.C., is not an isolated one. It is connected with other properties, as with its conditions. We now must ask: which properties must "being" communicate to a thing that it may be subject to the P.C.? Which are the chief properties of being, i.e. the chief ontological conditions of the working of the P.C.?

First, as a matter of course, the contradictory attributes, in order to be really contradictory, and to annihilate each other, must have one and the same subject. They must not only be "somehow united," but the two properties must concern the *same* identical object, seen at the *same* time and in relation to the *same* part.

Secondly, being and the things which participate in being are *determinate*, i.e. they are different, they are distinguished from everything that is not themselves. To be determinate, to be different, to be separated from all other objects, to be itself and nothing else, these all are one and the same. For it is just by its definite characteristics that a thing is marked off and distinguished from all others. This excludes all *ambiguity* from the reality of things. Each object, at a certain time and in a certain relation has only one attribute and not more than one in one relation. Reality in itself is supposed to be unequivocal.

The P.C. cannot be applied to indeterminate objects, in so far as and in the respect in which they are indeterminate. In particular propositions, affirmation and negation are compatible with each other: "Some A are B; some A are non-B." These two judgments are not contradictory: both can be true. There is an element of indeterminativeness in them, and that is in the word "some" (which either means "at least some" or "only some"). By abolishing this indeterminate element in "some," by saying: "All these some A are B" and "all these same some A are non-B," we obtain a real contradiction. The case is similar with the indefinite judgments. The P.C. is the law of things and judgments only in so far as they are determinate.

It is a condition of the P.C. that diversity cannot at the same time be unity, non-diversity. In our world everything suffers from a dearth of properties, it has not at its disposal an infinite wealth of attributes, it is excluded from a great amount of properties and qualities; in this world things are repelled from each other, they collide and they cannot penetrate each other indefinitely. This *finiteness* of things and their *hard exclusiveness* against each other is a condition of the P.C.

Now the P.C. can be inadequate to express the fundamental law of reality either in the sense that it is *meaningless* in regard to this reality or in the sense that it is *violated* by this reality. The principle of contradiction becomes meaningless in regard to a reality if this does not show or contain the categories implied in contradiction, if there is no object to which the P.C. can be applied. The P.C. is violated by a reality, if contradictions do actually appear in it, if contradictory attributes actually coincide in one and the same thing.

A further distinction must be drawn: We may distinguish two aspects of reality, one initial, unsatisfactory, only "apparent" and untrue, the other final and true. Then the P.C. can be abolished for either one or the other. Kant, Herbart, Bostroem and Bradley abolish the P.C. in some sense or other for the initial world only. Heracleitism, Nicholas of Cusa, Hegel, etc., abolish it for the final and true world. It is only with the latter view that we are concerned here.

We first investigate the question, under which conditions the P.C. becomes *meaningless* for ultimate reality. We saw that the P.C. presupposes the existence of *identity* and of determinate and sharply defined *distinctions* in reality. Where one of these two is denied to be a character of ultimate reality, the P.C. does not express and render a characteristic of ultimate and real reality.

Now these two aspects of reality seem to be strongly guaranteed by the necessities of practical life. But the attitude of philosophers towards everyday practical life is very often a critical one: they do not accept the data of everyday experience as ultimate data: they try to go behind and beyond them. Most philosophy is concerned with a world which appears to the philosopher to be qualitatively different from and more real than the world of the average man in the street. The denial of the practical world may in some cases go so far as to imply even the P.C.-character of this world. It is with these cases that we are now concerned. We shall now consider first the case that the category of *identity* disappears from the real world, and secondly the case that the category of *distinction* disappears.

(2) *The P.C. is Meaningless in Reality*

(*a*) *Because there is no identity in the real world.* The insistence on the fact of change in the universe which goes so far as to exclude all elements of rest, stability, permanence, identity and being, from the image of the real world has been propounded in different times from different motives. We find it in the school of Heracleitus, in the doctrines of *Protagoras* and *Cratylos*. The humanistic system of Protagoras tends to exclude all definite and determinate properties

from the reality of things in order to transfer them into man, into his sensations and aspirations. Recently *Bergson* developed a similar theory. It is common feature of both theories that stability, rest, etc., are considered as illusions created by the considerations and needs of an everyday practical life, which appears equally inferior to the aristocratic and esoteric haughtiness of an Heracleitus, as to the prophet of the rich, spiritual, irrational, and vigorously antimechanic *élan vital.*

In the case of Heracleitism, Plato and Aristotle have conclusively shown the destructive effect on the P.C. of any doctrine which interpretes movement as a mere becoming, as the absolute negative of rest, and as the only real feature and aspect of things:[1] Movement, conceived by Heracleitism as excluding all elements of being, is devoid of all identity and sameness. There is movement and becoming, but there *is* nothing which moves or is moved, or which becomes. There is a perpetual, uninterrupted, and complete flux, and nothing lasts or remains in it. Without interruption one change follows the other. There is no halting-point at which the P.C. might be applied. Nothing substantial outlasts the perpetual change of events. There is no identical nature, which unites several "states" or "aspects" of one "thing." Everything is in a perpetual flux, without a constant relation to one another, unconnected, incoherent like flame or fire, without cause, permanent order, or immobile law, without definite distinctions. It is just because for Heracleitism no lawful connection exists between events that it is distinguished from the modern dynamic theory of matter and from the Buddhist doctrine of universal impermanence and change; for these doctrines assume the persistence of a physical or moral law above the perpetual change. "Things" are for Heracleitism neither determinate nor determinable, because they do not even for a fraction of a moment persist in a definite identity, because everything loses its properties or qualities in the very moment in which it got them. Everything *is* and also *is not.* There is only a becoming which neither is nor is not. In fact, as Plato says, "there *is* neither anyone to know, nor anything to be known" in this world.

(*b*) *Because there are no distinctions in the real world.* The school of thought, which we may—somewhat inadequately—call the school of "*mystical pantheism,*" tends to make the P.C. meaningless by abolishing the differences and distinctions in the real world.

The culminating point of all mystical experience is the state of *ecstasy,* of complete union with God, with the One. In mystical

[1] The following description of the relation of the Heracleitean world to the P.C. and its conditions is taken from Plato's *Theaitetos* and *Cratylos,* and from different passages of Aristotle, Alexander of Aphrodisias, and Asclepius. For the exact references, see E. Conze, *Der Satz vom Widerspruch,* 1932, n. 29.

ecstasy one and only one idea, one and only one object fills the whole mind, binds all attention and *is* the whole of reality. *Mysticism* develops into *mystical pantheism* under the two conditions, namely, that the state of ecstasy is considered to give a true, the *only* true image of reality, and further that the one object of ecstasy is expressly stated to *include all* reality. If distinctions and oppositions are, although different in ordinary practical life, but one in the object of ecstasy, if a contact with true reality is attained only in ecstasy, and if the object of ecstasy comprehends all reality, then the unreality and vanity of the distinctions and opposites in the object of ecstasy renders also the P.C. meaningless. Mysticism shows a strong tendency towards mystical pantheism especially in the Indian Upanishads, in Chinese Taoism, in Mahāyāna Buddhism, in Mahometan Sufism, in German Metaphysics (Master Eckehart, Nicholas of Cusa, Jakob Boehme, Hamann, Hegel), and occasionally in England (e.g. Brook).

Generally mystical pantheists do not devote much attention to the consequences of their ideas on logical thinking, its categories and laws. As far as I know, the German cardinal *Nicholas* of *Cusa* has, at least in his *De docta ignorantia* and his other writings between 1440 and 1450, clearest of all elaborated this aspect of mystical pantheism. In his philosophy the infinite totality, the absolute infinite, the maximum *quo majus esse non potest* is the "dominating idea." There is only one true reality, the one infinite totality which has the fundamental property to comprehend everything. This conception affects the P.C. in a double sense:

On the one hand, the mystical pantheist can assume that in fact nothing except the One and infinite Absolute does exist. All differences are then absolutely reduced to nought. Since contradictions are not possible without differences, the P.C. is meaningless and inapplicable.

On the other hand, a more dynamic and somewhat complicated theory can be given, and was in fact given, by Nicholas of Cusa: Reality appears as a complete and undivided unity in the experience of *mystical ecstasy*. It is the attitude of *everyday practical life* which acknowledges the differences and divisions in reality. Now, man does not begin his conscious life with mystical experience, but, before he reaches it, he first has to go through the experience of everyday life. In the theory of Cusanus the everyday aspect of reality has not entirely vanished away even on the highest summit of truth; it is preserved, but seen and interpreted against the background of the reality of mystical experience. Cusanus does mention the differences, distinctions, and divisions. He first predicates them of the Absolute, and only after that he shows their unreality and vanity. Therefore in his philosophy the P.C. is *actually violated*.

It is violated first with respect to the one and absolute reality

itself. For in the everyday world the incompatible attributes are distributed among different and mutually exclusive things and aspects. Now this difference between things has gone, they are all united in one reality and the contradictory attributes are all united in the one infinite reality. The totality is the one and identical subject of all contradictory, incompatible, and mutually exclusive attributes. As Cusanus has put it: "Since nothing is opposed to the Greatest, also the Smallest coincides with it." Cusanus explains that in this one totality distinctiveness is the same as indistinctiveness, plurality is the same as unity, identity is the same as diversity, particularity coincides with universality, posteriority and priority do not exclude each other, etc. The trend of the whole argument demands and the texts show clearly[1] that Cusanus, like the other mystical pantheists, does not maintain a mere *unity* of *opposites*, but an *identity* of *differences*, which is a *contradiction* in itself and of which the *identity* of *opposites* is a special case.

The logical mind will try to evade this conception by assuming that of mutually exclusive properties one is predicated in this, the other in another relation, that they are all attributes of the same thing, but of different and particular aspects of it. But this interpretation is excluded by the consideration that also the parts and the whole must coincide, must be the same in the totality. It is *one* totality; it has no proper parts; it is present as a *whole* and *undivided* in whatever we may consider as one of its "parts." Each predicate is without any restriction or limitation affirmed of the totality, and so is the attribute, which is different from and incompatible with it. For in the absolute totality there is one relation only for everything, the relation to the totality itself—since there is nothing outside it—and the relation to the totality wholly and undivided—since it has no parts.

There is a further aspect of the Absolute which excludes the P.C. Cusanus says: "Since the absolutely Greatest is really everything, which can be, and is so far removed from all opposition that the Smallest coincides with it, it is above affirmation and negation." But since the P.C. speaks of the relation between affirmative and negative judgments, it cannot be employed here.

The P.C. is also violated with respect to the world of the different things. For the unity and identity of things in the maximum devours and *annihilates* the differences they had in the ordinary world, but

[1] See E. Conze, *Der Satz vom Widerspruch*, 1932, 368–370. Robert Grenville (Lord Brook), *The Nature of Truth*, 1640, p. 100: "I fully conclude with Aristotle's Adversaries, Anaxagoras, Democritus, etc. That Contradictories may be simul and semel in the same Subject, same Instant, same Notion (not only in two distinct respects or notions, as one thing may be causa and effectum, Pater and Filius, respectu diversi; but even in the same respect, under one and the same Notion)."

at the same time the differences are *maintained* and preserved in the maximum. So the differences *are* and they *are not*, first successively, but also in some sense simultaneously, since even on the stage of absolute truth a semblance of difference still clings and adheres to the identity of things in the Absolute.

(3) *The P.C. is Violated by the Dialectic Nature of Reality*

Thus there is an element of dialectics in the theory of Nicholas of Cusa, which later on was developed by *Hegel*. Various considerations and motives have formed Hegel's rejection of the P.C. We may distinguish *three* main currents which contributed to it: First it is often forgotten that Hegel was not only a great logician, but also a great mystic. It is from *mystical pantheism* that he takes the fundamental assumption of his Logic that all categories are attributes of the one Absolute, are "definitions of God." We have just discussed the consequences of this assumption for the P.C. But Hegel combined this idea of one all-comprehending totality with a certain form of *Heracleitism*. The Hegelian Absolute is in constant movement, and so is everything which forms a "part" or an "aspect" of it. But the movement of the Absolute is not the perpetual and lawless flux of Heracleitus. It is a change governed by definite laws. Hegel's Absolute develops through a long history. One of the fundamental laws of this historical movement is the law of *dialectics*. With this third element in Hegelianism, with the dialectic element, we shall deal in the following section.

Dialectics, as conceived by Hegel and his school, maintains a connection between movement and change on the one side, and contradiction on the other. At least two explanations of movement are possible: The one explains each movement and each change by the influence of some external cause which *pushes* a thing out of the state in which it is, out of a state in which it would rest and remain, unless an external cause acted upon it. But Hegel, without denying the effects of the exterior cause, attributes change and movement also to an interior cause. He sees all things against the background, and in some sense as parts of the perfect Absolute, and believes that a changing thing shows by the mere fact of its change and alteration that it was an unsatisfactory, incomplete, unfinished, imperfect reality. *In itself* the thing has a tendency to destroy *itself*, to move *itself*, to change *itself*, as a sign of its inherent imperfection. Everything thus contains its own negative, and is driven out of its state by this inherent contradiction. Contradiction is the impulse of movement, it is the actual power which drives it on. Contradiction is real; but it is impossible for reality to be content in contradiction and to remain in it. According to formal logic the contradiction is

dissolved into zero, into the abstract nought. The "result" of a contradictory being is the not-being of this being. Also in Hegelian dialectics a thing cannot acquiesce in contradiction; but the contradictory thing or process is dissolved into the negation, not of everything, but of just this particular thing or process. The contradiction is solved by the thing moving out of its present state into another one. Movement and change are the solution of the contradiction.

It is not possible to discuss here the many problems connected with this conception. I will only illustrate it by one famous example, by the dialectic interpretation of *local movement*: Local movement can be accomplished only because a body is at the very same moment in one place and also in another place, because it is in one and the same place and also is not there. Local movement is the continual positing and the simultaneous solution of this contradiction. The body moves *because* it had come into a contradictory situation and wants to come out of it, out of a situation which makes incompatible demands upon it. *Because* the body cannot *be* at the same time at A and B, it *moves* from A to B.

This theory is of course open to many objections. But we are in the present essay not concerned with defending or refuting the theories which reject the objective validity of the P.C. Our only task is to expose them as clearly as possible and then show their emotional and practical basis, to which they owe their existence.

IV. The Practical and Emotional Basis of the Differences of Opinion about the P.C.

We now make the attempt to show that it was through entertaining certain types of practical and emotional attitude towards the world that the objective value of the P.C. was destroyed. At the basis of Heracleitism is a sad and melancholy feeling that all things instantaneously give way to fate and dissolution and nothing remains. Heracleitus himself was not as consistent in his theory of flux as some of his disciples; besides the irrational flux he acknowledged the assistance of a certain law, of a certain Logos, in the world. But the case of *Buddhism* shows that, whereas pessimism only *tends* to destroy the P.C., radical pessimism, i.e. *radical* negation of the practice of self-preservation, destroys it *in fact*: The doctrine of the "impermance" of things, as expressed in the religious formula "all things are evanescent," is at the very root of Buddhism. Buddhist philosophers elaborated this idea. For *Vasubandhu*, e.g. things perish in the very same moment in which they come to existence, and it is important to note that they perish without any cause, but simply in consequence of their own constitution; in them, as we would say,

affirmation and negation, being and non-being, coincide simultaneously and thus they perish instantaneously. This doctrine is clearly the theoretical counterpart of the annihilation of the world through the eightfold path. The *Madhyamika*-theory of the universal "emptiness" of things expresses the same intention: The Madhyamikas look at the universe from the standpoint of "absolute truth," i.e. from the standpoint of the Nirvana. Then things are "void" of all properties; all properties and categories can be affirmed and equally well denied of things, being inapplicable to a reality, which is without any plurality, properties, and differences. Things neither are, nor are not; nor have they being and non-being at once; nor have they not non-being and being at once. The wise clings not even in thought to any attribute, for this clinging will involve a desire and thus lead him astray. The same can be shown from the German pessimistic philosopher, Julius *Bahnsen,* a follower of Schopenhauer. He describes a world, as it appears and corresponds to a person who does not want to preserve, but who wants to annihilate himself. The person he has in view is so disgusted with life that he annihilates all he does. He simultaneously affirms and denies his self-preservation, he is interested at the same time in his own destruction and in his own preservation. This contradictory attitude of the tragical and radically pessimistic man is then projected into the outward reality according to the idea of Schopenhauer that the real essence of the world, the noumenal world, can be found only in the interior of man himself. So the volition of the utterly pessimistic man, turned as it is against itself, becomes the dominating idea of Bahnsen's philosophy. He says: "The metaphysical Ens is a Volition which has the only desire not to be a Volition." This volition is a never-ending contradiction in itself. It is rent and divided into two contradictory tendencies, and it is also the unity of these contradictory tendencies. It is an *ens volens idemque nolens.* All the contradictory acts of this tragic Volition are simultaneous, since, according to Schopenhauer's theory, there is no time in the noumenal world, and so everything is in the same absolute simultaneousness, succession appearing only in the phenomenal world. So radical pessimism destroys the objective validity of the P.C.

We likewise saw that the P.C. is destroyed, if man, as *Protagoras* did, gets the proud conviction that his sensory and sensuous activities are the measure of all things, of the things being that they are, and of the things not being that they are not. We further suggested the emotional background of *Bergson's* irrationalism. We still have to describe the practical and emotional attitude which is at the basis of *mystical pantheism.* We described the *object* of the mystical pantheist and its law. We must now say some words about the *subject* to whom the world presents itself in this manner and whose

attitude produces the particular features of this world: Man has abolished all action, has become indifferent to the differences between things, after having felt that all earthly things are equally valueless as compared with the absolute Value, God. Man has destroyed, has annihilated the Ego and *all* his aspirations. As Chuang Tsu has said about the true aim and attitude of man: "To embrace all things equally, without preference, without favour, that is infinity: all things consider equally, what then is short, what then is long?" Where not one thing is preferred to another, where not one thing is valued higher than another, where all action and impulse have died away, there also the difference between the one and the other dies away; everything becomes one and undifferentiated for him who found rest. As Angelus Silesius has put it:

> No man can ever know perfect felicity
> Till Otherness be swallowed up in Unity.

If we further ask for the emotional and practical background of *dialectics*, we must not overlook the Christian element in *Hegel's* theory. He measures all things by the standard of the absolute, perfect, and infinite God. Some Christian thinkers of the Middle Ages, like Anselm of Canterbury, Petrus Damiani, and also Nicholas of Cusa were led by the same comparison of all things with God to the conclusion that the things of this world properly are more "not existing," than that they "are existing." All things were polluted by sin, and sin had made them vain and fragile. In the Hegelian theory not sin, but contradiction is the sign of the imperfection and finiteness of things, and by the contradiction in things each thing is more "not existing" than it "exists," or, more exactly, it exists and equally does not exist. Owing to the contradiction it contains, no thing has a full and complete reality, no thing can rest content in the state in which it is, all things "must go to their judgment."[1]

Now, I think, we can draw the following conclusions as a result of our investigations: A phenomenal world, a world as it appears to us, consists of two factors: On the one hand, the "noumenal" world; on the other, a strong subjective factor. The image of our phenomenal world is largely influenced and formed by our emotions, aspirations, and interests. These in their turn are not the outcome of pure reasoning, but the result of our character and of the actual situation we occupy in the world of nature and society. We can speak of the objective validity of a law only in relation to one of the many phenomenal worlds, which, as long as we do not know the noumenal world, must

[1] I can deal here only with this one aspect of Hegelian dialectics. In a separate article I hope to discuss all the fundamental assumptions as to the ultimate nature of reality and as to the nature and task of man, which are implied in Hegelian dialectics.

all be regarded as being of the same theoretical value. Now, we have shown that the question whether we consider the P.C. to be a law of objective validity or not depends on the question whether we decide for optimism or for pessimism, for quietism or for activism, whether we feel as sensuous or as rational beings, whether we decide for or against a mechanical control of the environment, whether we are inclined to experience ourselves as perfect or as imperfect, as complete or as incomplete beings, as creatures of a God or as masters of the world. But decision in all that does not depend primarily on rational and theoretical considerations, but on our practical outlook. It is also this practical outlook which ultimately decides whether we regard "Being"—as it was described above—as the dominating idea or whether we choose another dominating idea, as, for example, the Heracleitean flux, the mystic Absolute, etc. Certain types of practical attitude have been proved to destroy the P.C. in the world which corresponds to them. Practical decisions penetrate and influence the validity even of the most abstract law of thought. The P.C. is in fact not an absolute law, but relative to the practical attitude you choose to assume.

PHILOSOPHICAL SURVEY

PHILOSOPHY IN ITALY.

In a posthumous book by F. Meli[1] there are joined two interesting studies in the history of philosophy. The first discusses the religious and political doctrines of Fausto Socino and their developments in the thought of the seventeenth century, and the second the rationalistic mentality of Spinoza. The two themes are essentially related, for in the religious rationalism of Socino the author recognizes one of the currents of thought that were to meet later in Spinoza's philosophy. The first essay has the merit of greater novelty, because Socinian studies have been neglected up to the present and only touched on indirectly, in their repercussions rather than in their origins. For Meli the historical importance of Fausto Socino lies in the fact that he draws from the religious experience of the Reformation a new conception of religion, clearly affirming the principle that Holy Scripture does not aim at conveying abstract knowledge, a scientific doctrine, but on the contrary, as Galileo confirmed, it aims at increasing in us justice, charity, and the moral sense. "Socino has a very lively sense of the morality of religion and of the religious aspect of morals. God reveals Himself to the pure in heart, and only in them does His word find an effective echo. Or, as Blondel says, with whose anti-intellectual intuitions Socino has much affinity, quiet and well-disposed souls can hearken profitably to a revelation from without. Dogma begins to lose its rigidity, and the intellectualistic interpretation of Holy Scripture disappears with it, before John Locke combats it, with greater clarity, in his essay on the interpretation of the Epistles of St. Paul."

This pragmatic motive of Socinian religious thought is assuredly very important, even for its historical repercussions. But by itself it does not explain why the name of Socino and the influence of his thought on the Western mind should be constantly claimed as the precursor of modern rationalism. Pragmatism and rationalism would seem at first sight to be incompatible with one another. On the contrary, in order to explain their agreement, another aspect, no less important, of Socinian thought must be brought into prominence, and that is that the pragmatic premise illustrated above forms the ground of a closely reasoned criticism of traditional Biblical interpretation in which Socinian rationalism can be developed in all its vigour. Thus we find a conjunction of opposite motives, analogous to what we meet in Spinoza's theologico-political tractate.

Meli's second essay belongs to the more recent type of Spinozan interpretation which seeks to replace the hypostatic view of "Nature" by a conception that is dynamic and in some measure spiritual. In examining the so-called parallelism of attributes Meli contends that its two terms, thought and objective existence, lie in the same plane. "The error of the critics," he says, "consists in having tried to consider in the same way thought in so far as it is identical with being and thought in so far as it is a reflection on itself. In the first case, thought is simply identical with being, in the second, thought recognizes identity and reproduces it within itself." In other words, thought

[1] F. Meli: *Spinoza e due antecedenti italiani dello spinozismo.* Firenze, Sansoni. 1934 (octavo, pp. 197).

as *idea ideae*, as consciousness, eludes the parallelism, not finding a correspondence in the objective term, which can be said rather to represent the mental synthesis of the two subordinate parallel series. It is a just observation and has already been made by others, but the only legitimate conclusion that can be drawn from it is that the introduction of the concept of consciousness into the *Ethics* of Spinoza tends to crack the rigid substantialism of the beginning, and to upset the equilibrium in the economy of the attributes in favour of thought. The dynamism of Leibnitz will later make a breach through that crack. But Meli anticipates too much the history of ideas, assuming that Spinoza had already consciously realized what was only to be the fruit of a protracted working-over of his thought. Thus he not only excludes any ontological interpretation of substance, restricting its nature to the activity of its self-revelation and expression, but he comes finally to make a dialectic unity of the unity of the attributes transcending opposition and distinction.

In a short, compact volume, A. Corsano[1] re-examines the problem of the origins of the philosophy of G. B. Vico. This had already formed the subject of a monograph by Gentile, the aim of which was to determine the speculative position reached by Vico in his earliest writings, the *Orazioni inaugurali*. Corsano now returns to the same theme, attacking it, however, from a different point of view, that of the relations of Vico's thought with the cultural environment of Naples and the humanistic tradition. The result of his wide and deep researches is to discredit still further the old legend of Vico's total isolation in his historical setting, showing us with what hearty agreement and wide sympathies he participated in the agitated and eventful movement by which Neapolitan culture began to share in the new intellectual life of Europe. The idea of a linear development of his philosophical thought, sprouting spontaneously out of an antiquated and miscellaneous mass of humanistic learning, is now for the first time revealed as fallacious. Instead there is an obscure and silent labour of mental preparation, without a definite philosophical character, or with a character very different from that which will appear in Vico's more mature work. To begin with, Corsano presents to us a young illuministic Vico, a partisan of the new "libertine" ideas that had just reached Naples from beyond the Alps, and about to be involved in the heresy trials which raged against these literary movements towards the end of the seventeenth century. As if to expiate this youthful enthusiasm for illuminism, Vico took refuge later in the humanistic study of antiquity. From this vast and intensive labour of erudition there emerged gradually into light that habit of mind which had already been forming for some time, and took on a new direction from his humanistic studies and a stronger realistic and historical bent. This conjunction of new and old is of great importance for the understanding and disentangling of the strange medley with which Vico's thought presents us, ranging from audacious innovations to reactionary caution, from a "speculative ardour so unbounded that it does not shrink from any of the audacities of the most courageous spirits of the age," to "the attitude of *laudator temporis acti*, of defender, with an almost quixotic generosity, of an over-ripe and debilitated culture." The progress of Vico's thought consists essentially in the fusion of the two mental themes, and consequently in the elimination of everything in either of them that could not be assimilated by the other, the elimination of whatever was abstract in his early illuminism, and of whatever was extrinsic and ornamental in his humanistic culture. Corsano pays special attention to this second part of the process of simplification and sifting out by which Vico achieves the conquest of rhetorical and jesuitical humanism

[1] A. Corsano: *Umanesimo e religione in G. B. Vico*. Bari, Laterza. 1935 (octavo, pp. 183).

together with the establishment of another more intrinsic humanism, in which literature is no longer the framework but the actual material of the picture.

Another essay in the history of philosophy that deserves mention is that of A. Garosci on Jean Bodin.[1] Living in France, his native land, in the sixteenth century, while decisive experiments were being made towards religious and political unification, Bodin was able to draw valuable lessons from them, and his clear rationalistic mind has anticipated their epilogue. While the outcome of the struggles for the unity of the royal power still hung uncertain, he saw clearly what was the point at issue between the contending parties—the principle of absolute monarchic sovereignty. He became the vigorous champion of this principle, and drew up that programme of centralization of government that was later put into practice by the French monarchy of the seventeenth century. His *Six livres de la République*, published in 1577, have resemblances to the Florentine writings on politics, in so far as they recognize that all States owe their origin to force and violence, but they differ by emphasizing the separation between the problem of origins and that of the intrinsic justification of power. The authority of the State does not rest on force although it is derived from it, but on sovereignty, defined as "the absolute and perpetual power of a Republic," whose most striking external manifestation does not lie in the executive and judicial functions, but in the power of giving laws to all the subjects. This is a conception of public right which is distinct from the conventions of private right, like the law of contract: the one is consequent on him who has the sovereignty, and who can therefore put compulsion on all excepting himself; the other is a mutual convention, which implies reciprocal obligations.

However, in speaking of absolute sovereignty in the theory and practice of the sixteenth and seventeenth centuries, one should guard against giving it that meaning of totality to which some more recent historical experiences have accustomed us. In the dawn of the modern age monarchy, however absolute it may claim to be, is in fact considerably limited, whether by antique and tenacious survivals of feudal autonomies, or by the claims of the new individualism (which finds its most striking expression in the idea of natural right), or by the insufficient practice it has as yet in the power of its authority to penetrate into the web of society. The sense of these limits is very keen in Bodin, and Garosci, in the course of analysing his work, gives ample evidence on this point.

Another side of Bodin's publicist activity is concerned with the philosophy of religion, which is chiefly exemplified in the *Colloquium heptaplomeres*. It is a dialogue, supposed to take place at Venice between the representatives of seven different religions, and it aims at showing how the differences of the seven religions that generate fratricidal conflicts derive from purely human and fictitious factors, obscuring the profoundest sense of religion which is common to all men. The idea of a similar natural religion is widely diffused among the European writers of the sixteenth century. The task of gathering together the differential characteristics in Bodin's conception has been admirably carried through by Garosci, who has shown that, while to the other thinkers of the Renaissance natural religion has an immanentist and pantheistic character, in Bodin it has a strongly marked Hebraic bent. Bodin came of converted Hebrew (*marrano*) stock, and kept alive in his heart the worship of a transcendent God, and the God of his natural religion is the actual God of the Hebrews, but the conception has passed through the filter of a philosophy that has

[1] A. Garosci: *Jean Bodin: Politica e diritto nel Rinascimento francese.* Milano, Corticelli. 1934 (octavo, pp. 329).

deprived it of its personal and anthropomorphic attributes. This also serves to explain Bodin's particular antipathy for the dogmas of the Trinity, the incarnation and the redemption.

GUIDO DE RUGGIERO.

(*Translated from the Italian by* CONSTANCE M. ALLEN.)

PHILOSOPHY IN RUSSIA.

IN U.S.S.R. dialectical materialism is still the only subject discussed by writers on philosophy. Philosophical publications during the last year include Lenin's *Philosophical Note-books*; *Dialectical Materialism and the Theory of Balance*, by Selektor; *Marx's Philosophical Development*, by Lipendin; *A Course of Dialectical Materialism*, by Markuse; *Dialectical Materialism and Social Democracy*, by Rudash; *The Idealistic Dialectic of Hegel and the Materialist Dialectic of Marx*, by L. Axelrod. On the occasion of the fiftieth anniversary of Marx's death the Communist Academy Institute of Philosophy has published a *Symposium* containing papers on materialistic dialectics, on the relation of Marxism-Leninism to culture and natural science, and discussion of those papers. A number of small textbooks on dialectical materialism, or *Diamat* as it is called for short, are issued for university schools not only in Russian but also in some of the languages spoken in the Soviet Union. The only philosophical publications on other subjects are a booklet by Bogdanov, a professor of mathematics, on *Actual Infinity*, with reference to Zeno, Newton, and Cantor; D. Zuev-Insarov's *Handwriting and Character*; a translation of Kuno Fischer's *Hegel* and of Giordano Bruno's *Della Causa, Principio ed Uno*.

The revival of interest in the Hegelian philosophy after the publication of Engels's *Dialectics of Nature* in 1925 held a hope that Soviet writers might outgrow their materialism and develop some new line of thought. For the last few years, however, they have done nothing but repeat over and over again the stale arguments used by Marx, Engels, Lenin, and even Stalin! The reason for this state of things is obvious to anyone who understands the conditions of life in U.S.S.R.—but this does not help to make Soviet philosophical writings more interesting. The utter absence of independent thought, and constant appeals to the authority of Lenin & Co., makes them weary reading.

Lenin's *Philosophical Note-books*, a volume of 472 pages in fine red binding, contains synopses that Lenin wrote of philosophical books he had read, and his comments upon them. Most of the space is devoted to Hegel's *Philosophy of History* and to his dialectical method, of which Lenin thought very highly. Other parts of Hegel's teaching do not seem to have made much impression on Lenin's mind; thus, he takes Hegel to be defending materialism whenever Hegel speaks of objectivity. The *Note-books* have no philosophical value whatever but throw some light on Lenin's personality. Apparently the least reference to God made him lose his temper. Thus Hegel remarks apropos of Epicurus that his system is lacking in the conception of a world-purpose, of the wisdom of the Creator; Lenin copies out the remark and writes in the margin, "Sorry for God, are you? You idealist scum!"

Soviet Russia did not send any delegates to the Congress of Philosophy in Prague last September. An article about the Congress appeared in the magazine *Under the Banner of Marxism* (Nos. 5 and 6). The author, Z. Kalandar says that modern bourgeois philosophy is suffering from "atomization, disruption,

and general decay." The Congress has shown, he thinks, that the only concern of the "scared, rotten, and impudent bourgeoisie" is "to leave the world unchanged." It is, of course, only natural that Soviet philosophers should have kept away from such a congress.

All who want to know what dialectical materialism is ought to read an excellent little book by Professor Lossky on the subject, just published in Paris. Unfortunately, it is so far only available in Russian and in Czech translation. Lossky begins by an examination of mechanistic materialism, which is sharply contrasted by Soviet writers with dialectical materialism, and then goes on to discuss Hegel's dialectical method, so essential to the latter theory. He criticizes Hegel's conception of the identity of opposites, pointing out that *unity* is not the same thing as *identity* and that the law of contradiction is in no way cancelled by the real process of change. Passing on to a detailed examination of dialectical materialism, he shows that it is full of self-contradictions which are supposed to be a legitimate result of the dialectical method. Matter is endowed with qualities utterly inconsistent with the original meaning of the term; "motion" is taken to mean every conceivable kind of creative activity and development. Matter is declared to be "all that is" (see Byhovsky, *Ocherk filosofii dialecticheskago materialisma*); "it is extremely rich in content and has a multitude of forms. It does not receive its qualities from spirit but can itself create spirit as well as all other qualities" (see Yegorshin, *Yestestvoznanie, filosofia i marxism*). Lenin speaks of it as a "creative force, endowed with a power akin to sensation."

Why this god-like, all-embracing entity should be called matter remains a mystery, but evidently Soviet writers have to be materialists at all costs. Both the "dialectical" and the "mechanistic" materialists insist that all being is spatial and temporal in character; both hold that knowledge arises through the impact of material particles upon our sense-organs; both deny freedom and are strict determinists.

Lossky has made a careful study of dialectical materialism and his account of it is lucid and straightforward. He scrupulously points out every element of truth that he can find in it, and his fair-mindedness makes the book particularly valuable.

An interesting work has been published in Prague by the German Society for Slavonic Research and the Slavonic Institute, *Hegel bei den Slaven* (494 pp.), under the editorship of Tchizhevsky, who contributes an article of 250 pages on *Hegel in Russland*. Hegel's influence was very strong in Slavonic countries and particularly in Russia. Tchizhevsky points out that Russian thinkers have been very much alive to the *concrete* character of Hegel's thought. He proves this by reference to I. Ilyin's famous book on Hegel and to the works of Losev, Lossky, Frank, and Florovsky. All these writers maintain that Hegel's method is one of intellectual intuition and that questions raised by him are of vital importance for the further development of philosophical thought. This is well brought out in Florovsky's article, *The Crisis of German Idealism*, in *Orient und Occident*.

Two new books by Berdyaev have been published in Paris, *Ya i mir objectov* (*The Self and the World of Objects*) and *Sudba cheloveka v sovremennom myre* (*The Fate of Man in the Modern World*). In the first, "an essay in the philosophy of solitude and of communion," as Berdyaev calls it, it is argued that the isolation of human beings from one another brought about by their egocentrism dooms them to solitude which can only be overcome "on the spiritual plane, in mystical experience where all is in me and I am in all." The natural man tries to escape from his solitude through knowledge, but all he can know is an impersonal and lifeless world of objects with which there can be no

communion. His fellow-creatures, in so far as they too are regarded by him as objects, form a society which tends to crush the individual and is inevitably in conflict with his inner spiritual life. The only way out is to rise to a higher plane and discover, through mystical knowledge, not mere objects but other personalities with whom the self can enter into living communion. In so far as man recognizes his own self as a person he cannot be reduced to the level of a mere organ of the social whole.

In the course of the book Berdyaev says many brilliant and profound things, and his defence of personal freedom against all forms of social tyranny is admirable; but some of the problems he is struggling with are of his own making. There is nothing in the nature of cognitive activity to confine it to the apprehension of "lifeless objects," nor is there any difference in kind between sensuous and mystical knowledge, since both rest upon a direct perception of the reality before us. Epistemology is not Berdyaev's strong point; he is at his best in dealing with questions of practical philosophy. His second book, *The Fate of Man in the Modern World*, short as it is, is an excellent analysis of the impasse to which mankind has come in this "de-humanized and de-Christianized" age. The conception of the inherent value of human personality is fast disappearing; a plaything of irrational forces and instincts, man is valued merely as part of a social whole, as a member of a certain class or race. After drawing a gloomy but very convincing picture of modern civilization, Berdyaev shows that the only hope for mankind is Christianity, which alone stands for the value and dignity of personality, for freedom, brotherhood, and social justice.

NATALIE DUDDINGTON.

NEW BOOKS

Nature, Man, and God: being the Gifford Lectures delivered in the University of Glasgow in the Academical Years 1932–1933 and 1933–1934. By WILLIAM TEMPLE, Archbishop of York. (London: Macmillan & Co. 1934. Pp. xxxii + 530. Price 18s.)

Archbishops are, in these days, men so constantly kept busy in the discharge of their ecclesiastical functions that we may welcome in the simultaneous achievements of the present distinguished occupants of the Sees of Canterbury and York on the Indian Joint Committee and in the Gifford Lecturer's chair at Glasgow respectively a fresh confirmation of the truth that it is not those who have most to do who find it hardest to do more. In the volume before us, with its comprehensive title, Dr. Temple has made a contribution of very great interest and importance to the literature of philosophical theology. As he observes, since Lord Gifford founded his lectureships "a great change has come over men's habit of thought concerning the distinction between Natural and Revealed Religion." Gifford Lecturers are less shy than they were formerly wont to be of paying attention to the latter. They can, as Dr. Temple puts it, "frankly and fully" acknowledge "that there neither is, nor can be, any element in human experience which may claim exemption from examination at the bar of reason" and conform to the founder's injunction against *reliance upon* "any supposed exceptional or so-called miraculous revelation," while finding it impossible to avoid (as, apparently, Lord Gifford would have had them do) any *reference to* such. Recognizing that Natural Theology has always—though sometimes without a clear consciousness of the fact—presupposed the religious experience embodied in historical religions, they must, if they would be, as the founder desired, "under no restraint" in discussing the "origin, nature, and truth" of "man's conception of God," consider the part which may be played in the formation of that conception by such a revelation as the historical religions profess to convey. But, if Natural Religion seems now less easy to discriminate from Revealed than it seemed to Lord Gifford, on the other hand believers in Revealed Religion are more ready than they were, for the most part, in his day to agree that, to quote Dr. Temple's words, the message of revelation has not "the inerrancy of a divinely dictated oracle," but reaches us in a mode which "perpetually calls for private judgment" to estimate not only the scientific or historical value of statements contained in an "inspired" narrative, but "the claim on their allegiance of any particular recorded direction." For Dr. Temple, at any rate, who neither, with Karl Barth, repudiates Natural Theology nor makes the clean cut between it and Revealed Theology which is characteristic of Thomism, there can be no hesitation in affording a generous welcome to all intimations of God, from whatever source immediately derived, as, although unequally mixed with that human error from perversion whereby none is guaranteed to be immune, are yet alike in their ultimate origin divine.

This attitude of our author's is consonant with a general sympathy with the "British idealists" of the last generation, which is expressed in his dedication of his book to Edward Caird and in his frequent resort to words of Bernard Bosanquet as affording the best available statement of views which

he himself holds. But his disagreements with Bosanquet are at least as marked as his agreements. The latter are illustrated by the place which he assigns to Logic, to their "neglect or inadequate comprehension" of which he (I think rightly) attributes "the failure of many psychologists to do justice to Religion"; by his almost contemptuous rejection of the denial of all value to motives lower than the highest by "a certain kind of moral idealist"; and by his readiness—which induces him even to disown the label of "Idealism," and to describe his own position as "dialectical realism," "closely akin to the dialectical materialism of Marx, Engels, and Lenin"—to insist on "the intimate unity of spirit and matter" and to find in the material universe as conceived by evolutionary natural science not the consequent, effect, expression, or instrument, but (to use a phrase which is indeed Dr. Temple's and not Bosanquet's) the sacrament of spirit.

But in the strongly personalistic turn of his thought, and in the high value which he sets on history, Dr. Temple's position is at the opposite pole to Bosanquet's.

In his second lecture Dr. Temple deals with a "tension between Philosophy and Religion" which he holds to be, since each claims as its sphere "the entire field of human experience," and, since both "have a rightful place in life," not only inevitable, but good. Bosanquet would not perhaps have said "No" to this, nor would he have been prepared to deny that "the heart of Religion is not an opinion about God such as Philosophy might reach as its conclusion—it is a personal relationship with God." But then he would have inferred that the God with whom the religious man feels himself to enjoy a personal relationship cannot be, in the eyes of the philosopher, more than an appearance—even if perhaps the least inadequate appearance—of the Supreme Reality. Here he would have parted company with Dr. Temple, who tells us, in one of the striking phrases which he has the gift of coining, that "the primary assurances of Religion are the ultimate questions of Philosophy": for, as I am myself convinced, and as I take Dr. Temple to hold (though he does not in this book expressly discuss the question), it is a "primary assurance" of Religion that the object of worship is no less than Supreme Reality.

These lectures afford so many opportunities for discussion that, if this notice is to be kept within reasonable limits, only a few of these can now be taken; and, in *Philosophy*, topics of general philosophical interest are more suitable for comment than those specially concerned with the characteristic doctrines of Christianity. I will not dwell upon Dr. Temple's epistemology. He himself deprecates an exclusively epistemological approach to metaphysics, such as he considers to have been too common among modern philosophers, as the cause of their failure to construct a theory of experience which does justice to elements of our experience other than cognition; and he would probably not be surprised to learn that his examination of the problems usually associated with the theory of knowledge is not the part of his work which strikes the reader as the most thoroughly worked out. On the other hand, those acquainted with his earlier writings will be prepared to find him at his best when concerned with the metaphysical interpretation of our moral and aesthetic experience: and they will not be disappointed in their expectation.

Of aesthetic experience indeed, although we frequently become aware of the influence exerted by it upon Dr. Temple's thought, comparatively little is here expressly said: and we are referred to the fuller treatment of the subject in *Mens Creatrix*. In one place Beauty seems to be in effect defined as the discovery by Mind in the activity of contemplation of itself or its principle

in its object. Surely no one could learn from this what Beauty was, apart from acquaintance with it in a particular instance. But perhaps Dr. Temple would admit this; the formula is not given as a definition of Beauty, but as distinguishing the "actualization of Value" where Beauty is the value actualized from the cases in which this value is Truth or Goodness.

Turning to moral experience, it is satisfactory to find Dr. Temple decidedly regarding as "misplaced" any "eager interest on the part of theologians in the supposed discovery of indeterminacy at the basis of the physical world." Freedom, he lays it down, is "not absence of determination; it is spiritual determination as distinct from mechanical or even organic determination. It is determination by what seems good."

Of no problem in this sphere is Dr. Temple's treatment of more interest than of that of the relation between moral evil and finitude; and here his agreement and disagreement with Bosanquet are alike significant. Bosanquet would not, I think, have hesitated to affirm that moral evil is a *necessary* consequence of finitude; Dr. Temple hesitates, but is ready to allow that it is a practically inevitable consequence. The difference may appear trivial; but I do not think it either unreal or unimportant, although Dr. Temple does not himself insist upon it, and even adopts without reserve, as expressive of his own contention, a characteristic passage from *The Principle of Individuality and Value*, in which Bosanquet, using the phraseology of Christian theology, lays it down that "for a Christianity which has the courage of its opinions the idea of victory involves the idea of the Fall" so "that the scheme of salvation, involving finiteness and sin," is "essential to the nature of God and the perfection of the universe." Dr. Temple's own words are that the Fall was not "utterly necessary," but "too probable not to happen," so that "sin falls within the divine purpose." The crucifixion of Christ, he tells us, was "for a moment the worst of all manifestations of evil; but throughout the ages it is the best of all manifestations of good." "The future," he adds, "does not merely disclose in the past something which was always there, but causes the past, while retaining its own nature, actually to be, in its organic union with its consequence, something which in isolation it neither is nor was." Nor does he shrink from saying that "a sinful world redeemed by" the crucifixion "is better than a world that had never sinned."

Despite the importance attached by Dr. Temple to history, and especially to the history of philosophy,—of which (in a sentence which is, at first sight, difficult to reconcile with his support elsewhere of Bosanquet's view of logic, to which I have already referred) he speaks as "the discipline required to perform the function traditionally assigned to logic"—it is in his observations on the history of philosophy that his touch is least sure and his arguments least convincing. He sometimes gives the impression of being content to criticize thinkers and schools of thought on the basis of a somewhat superficial acquaintance with their tenets and their background and with too implicit a reliance on certain traditional interpretations of their teaching. Aristotle's doctrine of the "First Mover," for example, is surely misunderstood when the initiation of movement by the object of desire is taken as equivalent to its initiation by a purposive mind. (St. Thomas, by the way, was fully alive to the difficulty, for a Christian theism appealing to the authority of Aristotle, which is involved in the difference between the two.) The third lecture, entitled "The Cartesian Faux-Pas," is probably the least happily conceived section of the book before us. No doubt in the reaction from mediaeval scholasticism an unduly subjectivist trend was introduced into modern philosophy; and, on the other hand, one is glad to find Dr. Temple

decidedly repudiating the reactionary view sometimes defended by the supporters of "neo-scholasticism" (and, I venture to think, too much encouraged by M. Gilson in his Gifford Lectures), according to which all post-Reformation philosophy is a divagation from the right path, except so far as it has been engaged in recovering some precious fragments from the ruins of the mediaeval synthesis. But, in his treatment of Descartes, our author fails to do justice to the philosophical importance of his theism. It is not enough to allow that he was personally sincere in his religious professions (has Dr. Temple, by the way, remembered the pilgrimage to Loretto?). What is missing is an appreciation of the fact that, though no doubt he was not primarily a man of religion in the sense in which Anselm (whose "ontological argument" he reviewed) was so, it would be far truer to say of him (as of the philosophers that followed him down to the time of Kant) that he too easily assumed that the concept of God to which his reasonings led him was to be interpreted in the light of Christian tradition than that he was content to construct that concept "for our purpose, not for His." What is said in the next chapter of Malebranche and the omission of any clear reference to the Cartesian Occasionalism confirm the general impression of a certain lack of thoroughness in Dr. Temple's treatment of this whole subject. Again, when we read of Kant's having in mind "the somewhat deistic object of contemporary Lutheran faith and worship" one feels that Dr. Temple has forgotten the existence of Pietism (in which Kant was brought up) and has not asked himself whether the object of much nominally Anglican "faith and worship" in the eighteenth century was not just as "deistic" as that of Lutheran.

But it would be to attach a disproportionate importance to historical matter which is, after all, only incidental to the main theme of the book to allow dissatisfaction with this to impair our gratitude for the wealth of original and penetrating thought which is offered to the readers of these remarkable lectures. I have already referred to the author's talent for framing phrases which stick in the memory; and I cannot refrain from quoting one in which, dealing with certain accounts of the emergence of Mind, Dr. Temple observes; "To suppose that a physiological organism becomes conscious only because its own evolution has brought it to a certain stage of complexity would be like supposing that the mechanical robot at a street corner will automatically turn into a policeman if the traffic is sufficiently congested."

I have noted a misprint, on p. 24, of "co-called" for "so-called"; and may be allowed to call the attention of the Archbishop to the fact that St. Bernard's authorship of the hymn quoted on p. 43 and the interpretation given on p. 157 to certain famous lines of Wordsworth are alike doubtful. But these are *minima*.

C. C. J. Webb.

Magistri Eckardi Opera Latina Auspiciis Instituti Sanctae Sabinae ad Codicum fidem edita: 1. *Super Oratione Dominica*. Edidit Raymundus Klibansky. (Lipsiae, in aedibus Felicis Meiner. 1934. Pp. xvii + 17. Price RM. 250; subscription price RM. 180.)

This is the first *fasciculus* to appear of a critical edition of the Latin works of the great German Dominican, Master Eckhart, to be produced by the Dominican Institute of St. Sabina under the joint editorship of Fr. Gabriel Théry of Paris and Dr. Raymond Klibansky, formerly of Heidelberg and

now honorary lecturer in King's College, London. It contains Eckhart's treatise on the Lord's Prayer, probably a work of the author's youth. The text is based on a manuscript which was owned by Nicholas of Cusa, enriched with marginal notes from his hand, and bequeathed by him to the library of the Hospital of his patron saint at his native place, to which it still belongs. Another manuscript, from the same collection, to which it was left by a friend of the philosophic cardinal, has also been used. When Dr. Klibansky's services were enlisted by the Dominicans in the preparation of their edition of Eckhart, he was already engaged on a critical edition of Nicholas of Cusa's own works, the first two *fasciculi* of which appeared in 1932.

To the treatise now before us Dr. Klibansky has prefixed a Latin introduction, in which he notices the interest taken in the fragments of Eckhart's vernacular writings by German philosophers of the nineteenth century from Hegel (whose attention was called to them by Franz Baader) to Schopenhauer; and the subsequent discovery of the Latin works (which, after the condemnation in 1329 of certain views of the writer, were rarely transcribed, and, since the time of Nicholas of Cusa, had been wholly neglected) by the Dominican scholar Denifle, who has been succeeded in the study of them by Fr. Théry of the same Order. Our editor has also subjoined to the text on each page an *apparatus criticus*, a very full account of his author's sources, and a collection of *testimonia*, drawn chiefly from other writings of Eckhart himself.

There is little in this brief and early tract which is characteristic of Eckhart's peculiar opinions beyond the assertion (in which he departs from the teaching of his *Ordensbruder* St. Thomas), that nothing temporal should be made the subject of prayer to God, since temporal things are to be reckoned as *nothing*. It is even affirmed in this connexion (though the statement is hardly borne out by the subsequent exposition of the petition for daily bread) that nothing of the kind is to be found in the Lord's Prayer itself.

Dr. Klibansky is to be congratulated on the admirable learning and scholarship displayed in the execution of his task. I would venture on three small criticisms only. On p. 12 must we not, to make sense, read *cum hiis* for *in hiis*? On p. 14 I do not understand the words *panem non salsam non deligatis*, and would hazard the conjecture that we should read *panem non salsam, nobis non delicatis*. The editor's own censure on p. ix of the scribe of the MS. he is following suggests that he might well have dropped out *nobis* before *non*. Lastly, on p. 17, in the passage which is quoted in the note from Eckhart's commentary on *Wisdom*, I should prefer not to read *meam*, with Dr. Klibansky, but to keep *unam*; especially as the exposition of a clause in the Lord's Prayer which is here referred to is not to be found in what he himself calls his "special treatise" on that prayer.

It will be a satisfaction to English scholars who read this book to note the acknowledgment made by the editor in his preface of the help afforded to him in the production of this valuable contribution to our knowledge of a great mediaeval thinker, under circumstances of peculiar difficulty which he does not specify but which may easily be guessed, by the Council of Academic Assistance and other learned bodies in this country. The suggestion has, I understand, been made that the publication of a first instalment of this edition of Eckhart has been hurried on in order to anticipate the appearance of another. The present *fasciculus* is, however, too obviously the fruit of long and patient study to lend the least support to any such imputation.

C. C. J. Webb.

The "Parmenides" of Plato. Translated with Introduction and Appendices by A. E. Taylor. (London: Oxford Clarendon Press; Humphrey Milford. 1934. Pp. vi + 161. Price 7s. 6d.)

Professor Taylor has once more placed all students of Plato and of Greek Philosophy in general in his debt by this small but profoundly important volume. We are grateful for a translation of a difficult dialogue—the first, I believe, since Jowett, who is never wholly satisfactory—by a master of Platonic language and thought, and for the helpful footnotes in which it is elucidated. We are grateful, too, for the studies of special points in the Appendices on the work of Zeno, the historical situation assumed in the *Parmenides*, Aristotle and the *Parmenides*, the connection between the *Parmenides* and the *Timaeus*, the neo-Platonic interpretation of the *Parmenides*, and the appropriate Bibliography. But for the general reader I think the most valuable part of the work will be the Introduction, in which the view of the significance of the dialogue, suggested by Burnet and worked out more fully by Professor Taylor himself, is lucidly and definitively expounded.

It used to be commonly supposed that the criticisms of the Theory of Form put forward in the first part of the *Parmenides* were very likely originated by Plato himself, and were in any case regarded by him as extremely serious and on some points decisive. They were taken so seriously by him that he modified his theory substantially, and in the second part of the dialogue he indicated the lines on which he proposed to modify it. No commentator, however, succeeded in producing a really satisfactory exegesis of the details of the very peculiar argument in the second part on these lines. And there was an equally complete failure to produce any convincing evidence from the later dialogues of modification in the main lines of the theory which could be plausibly assigned to the effect of the criticisms in the *Parmenides*.

There were obvious grounds, then, for demanding an alternative explanation. And this Professor Taylor's account supplies. Briefly put, it is this:—The criticisms in the first part came most probably from Megarian sources. They were not regarded as in the least convincing by Plato, nor, indeed, are they. He answered them, so far as they needed an answer, in the second part, by showing that the Megarian methods of argument, which are there imitated, could be turned with equally devastating effect on their own fundamental doctrine, inherited by them from the Eleatics, that reality is one. The criticisms are thus not answered directly: they could not be without starting from the same assumptions as those on which they were based; and it was just these assumptions which Plato would have contested. But they are answered even more effectively by showing that the whole method of argument by which they were reached was fundamentally unsound, and led to self-contradictory conclusions. The dialogue, then, appears in its true place, not in any sense as marking a turning-point in Plato's thought, but as an incidental reply to certain arguments that had been put forward in criticism.

This, to me, seems far more consonant with the most plausible view that we can form of the kind of purpose Plato thought could be served by published dialogues than the older theory. And, on all grounds, I am now entirely convinced that Professor Taylor's interpretation is in its essential points the correct one. Let those who need persuading read his clear and convincing account in this work, and then compare it with the very unconvincing attempts that have been made in the past to work out an alternative view. I hope, too, that those who have gone so far will go on to read the translation of the dialogue, and then to study the Appendices, particularly perhaps the account of Zeno's work and the Appendix on the relations of the *Timaeus*

and *Parmenides*, in which they will find the most lucid explanation with which I am acquainted of what Plato meant by identifying the forms with numbers.

G. C. Field.

Philosophical Studies, by J. McT. Ellis McTaggart, Litt.D., LL.D., F.B.A. Edited by S. V. Keeling, D. ès L. (London: Edward Arnold & Co. 1934. Pp. 292. Price 12s. 6d. net.)

Dr. Keeling, inspired by a sense of the value of McTaggart's philosophy and also no doubt by personal loyalty to one of his teachers, has collected a number of McTaggart's essays and occasional papers into a conveniently compact form. Apart from the ninth essay, which is a summary of a course of lectures which McTaggart used to deliver at Cambridge to those interested in philosophy, they have, completely or in part, appeared elsewhere; and they are, it is needless to say, distinguished in style and matter. Though one may with pardonable caution hesitate to assert as much as Cambridge naturally and excusably may be prepared to claim on his behalf, yet it must be admitted that those who had contact with such an able, clear, vigorous, and rigorous thinker have enjoyed a unique privilege.

The editor himself, in addition to informative footnotes, succeeds in giving an effective summary of McTaggart's views contained in these essays and helps the reader to an understanding of his author by a comparison, which is naturally on the side of McTaggart, of the standpoint of the latter with that of Russell. Such an introduction, combined with the fact that the essential matter of these essays has been incorporated into the elaborate and final philosophic system published in two volumes under the title of *The Nature of Existence*, would seem to leave the reviewer little to do but to recommend the volume to the philosophically minded public.

It is true that these essays have a biographical interest: not that they reveal to us the philosophy of McTaggart in its development, for in his case there seems to have been no such process. His philosophical position, as Dr. Keeling points out, remains fundamentally the same from his first essay, written in 1893, on "The Further Determination of the Absolute" (number ten in the present volume) to his last on "Ontological Idealism" (number eleven), published in *Contemporary British Philosophy* (Vol. I). What a difference is to be found lies in some of the arguments by which he seeks to establish his philosophical position, in his increasing independence of the influence of Bradley, and in the elaboration of his system without the help, at any rate obtrusive use, of the Hegelian Dialectic: all differences which serve to make his completed work a model of achievement and, whether capable of withstanding criticism or not, an inspiration to youthful philosophical aspirants. Nevertheless, while this absence of development may in some quarters be regarded as the mark of the true philosopher, gifted from the start with the pure philosophic vision of the nature of existence, there may be excuse for wondering whether the life-long consistency of McTaggart to an early vision or doctrine does not betoken a mental attitude closed against many diverse considerations and whether his achievement in system is not due to a deliberate search for arguments in support of an *idée fixe*.

The utility of metaphysics, according to McTaggart, lies not in the guidance it gives in life but in the comfort it can give us, provided it can give a certain kind of answer to certain supremely important questions. If the truth of a certain doctrine were to add enormously to the value of our lives and its

falsity were to do the opposite, then a belief that it is true will make us happy, and a belief that it is false will make us miserable. Now, such a doctrine, certain things being admitted to be valuable, is that "all the evil of the future and the past are surpassed infinitely in value by the good which lies at the end of time." McTaggart's philosophy is an attempt to provide reasons for believing that this doctrine is metaphysically true. It is the note on which his final system ends and it is the note which recurs in many of the present essays, so that there is justification for regarding it as expressive of his dominant interest.

He considers it essential to the establishment of this doctrine that time be shown to be unreal; and he formulates a highly original and ingenious argument for the unreality of time. The main contention is that what is contradictory cannot be real, but time is contradictory, for time must be at least a series of *past, present, and future,* anything in time must have these three characteristics, and these three are incompatible. The argument is subtle, but does not produce conviction. That "an event can never cease to be an event" is at least one proposition which plays a part in sustaining his argument, but, though accepted by him without question, assumes a good deal about time. Since time is unreal, causation must be interpreted without involving time or making time a basis for the validity of the notion, as does Kant's critical argument which at most is a valid argument *ad hominem,* say, against Hume. In a chapter on the meaning of causality, he defends, without seeking to establish the validity of, the view that causation is a relation of implication between existent substances; and in the final summary of his position the idea of causation as a relation of intrinsic determination between the occurrence of existing qualities leads on to the formulation of McTaggart's important principle of Determining Correspondence.

He himself calls his final and completed system an *Ontological Idealism,* according to which all that exists is spiritual. As an Idealism it involves the conception of selves and of substances. The latter term is used by him in a very uncommon way, for it applies to such things as a sneeze and a class or group. A knowledge of at least one self is defended on the basis of an immediate awareness; if the *I* can be known at all, this is the only way in which it can be known, and if it cannot be known in this way, we are not justified in asserting any proposition in which the term *I* occurs. As philosophy in his opinion is concerned with the *ultimate* nature of reality and as his conclusion is that this nature consists of selves, there is the curious feature, common to philosophies of this type, that the universe is ordinarily apprehended in a guise so very different from what it really is. McTaggart, to his credit, makes a serious effort to explain this curiosity: making use of the term *misperception,* he seeks to give an explanation analogous to explanations of erroneous perception in ordinary experience. But the two cases are very different; in the one case, the misperception of a colour or shape is explained in terms of a colour or shape; in the other, an eternal or timeless order is perceived as an order in time, and the latter has to be explained in terms of the former.

B. M. Laing.

Philosophical Studies. By A. E. Taylor. (London: Macmillan & Co. 1934. Pp. vii + 422. Price 15s.)

This is a welcome reprint of papers and articles which have issued from the pen of Professor Taylor during the last twenty years. They have all, with

one exception, been published before. But the various periodicals in which they appeared are not always easily accessible, so that it is a great advantage to have them thus brought together. For, though they differ in the degree to which they will appeal to the philosophical public, they are all of great interest and value, and display to the full those brilliant powers of exposition which we have come to expect from the author.

The first paper, the only one which has not appeared in print before, is an account of what we know of Aeschines of Sphettus. It is an admirably clear summary, and there is little in it which could be disputed, except, possibly, a slight over-emphasis on the resemblances between Aeschines and Plato in their account of Socrates, and under-emphasis on their differences. The next four deal with various points in Greek Philosophy; the titles sufficiently indicate their subject-matter—"Parmenides, Zeno, and Socrates," "Forms and Numbers," "The Philosophy of Proclus," "The Analysis of ἐπιστήμη in Plato's Seventh Epistle." These, dealing as they do with detailed problems, and obscure and difficult problems at that, will be of interest mainly to the specialist. For him they are of first-class importance. But it must be added that on some of these subjects the discussion has been carried, sometimes by Professor Taylor himself, a little beyond the point at which it is left here.

The next four essays deal with modern philosophers, and from their subject and their breadth of treatment of it would naturally have a wider popular appeal than the preceding papers. They include two public lectures on St. Thomas Aquinas and Francis Bacon, which seem to me to represent the high-water mark of luminous exposition and well-balanced judgment, and articles on "Some Features of Butler's Ethics" and "David Hume and the Miraculous." The last mentioned is a brilliant and decisive piece of destructive criticism. I am pleased to see that at the end of it Professor Taylor confesses to "a haunting doubt," in which I fully share, "whether Hume was really a great philosopher or only a 'very clever man.' "

The book concludes with two papers on more general questions, one on "Knowing and Believing," and one on "Is Goodness a Quality?" This last originally appeared as the final paper in a symposium, and to some slight extent loses in effectiveness when read in isolation from its predecessors. But both papers are of great interest and importance, and form a fitting conclusion to the volume.

G. C. Field.

Government by the Principle of Moral Justice. By C. Lambek. Translated from the Danish by Agnete Kortsen. (Copenhagen: Levin & Monksgaard; London: Williams & Norgate Ltd. 1934. Pp. 96. Price 4s. 6d. net.)

There is, apparently, in Denmark a "League of Moral Justice," the aim of which is to expound the principles of moral justice and to apply them in practice by means of a political programme. The philosophical foundations of the movement are set forth in a series of writings by Severin Christensen, Axel Dam, and C. Lambek; and the book now under review forms part of the series. The English of the translation reads well, the faults being comparatively few and unimportant.

As to the subject-matter, the author holds that all stable social organization is based ultimately on moral principles; and morality is essentially the voluntary acceptance by the individual of a regulated life, for only through regulation can life be both rich and coherent. Because our interests do not all flow from some single ultimate end, the individual can gain the coherent life only by the co-ordination of his many interests under the guidance of reason.

As individuals live in society, this rational control must also extend to the relations between individuals; but (says our author) it is wrong to suppose that social morality demands the subordination of the individual to society. Society is a collection of individuals, and all social rights and duties take their significance from the claims and needs of individuals. A owes duties to B because B possesses certain rights, and B's "rights" are certain liberties to follow his interests and to do what he wills with his own. The corollary to B's possession of rights is that he should recognize equivalent rights for A; and "social morality" is the rational attempt to apportion, as nearly as possible, equal rights to all.

It follows, from this account of moral justice, that A never has a duty to *promote* B's interests, or to take any *positive* steps to secure B's rights. His duty is confined to refraining from interfering with B's exercise of his rights. It follows, further, that any loss or hardship suffered by B cannot create any duty for A unless A has been the cause of B's loss or hardship. Hence, to take "social welfare" or "the greatest good of all" (phrases which imply an unconditional duty to promote the interests of our fellows) as the moral criterion is simply nonsense.

Under the guidance of this principle, the author lays down certain canons for social organization; and, as may be anticipated, the liberty of the individual and the preference of private over joint property are strenuously advocated.

The author's general ethical doctrine will be rejected by many. But even those who sympathize with it may feel that his practical application of it is inappropriate. Even if duty is *primarily* of a negative character—the duty of non-interference, rather than the duty of positively promoting the good of our fellows—surely this principle can be applied by itself alone only in a society the economic life of which is so simple that each person fends for himself. Once we introduce the principle of division of labour, duties immediately acquire a positive character; and, as the interdependence of individuals becomes more and more complex, and as society acquires something of an organic character, the content of moral duty increasingly requires as its general aim "the greatest good of all."

Because the importance of this principle of the division of labour is not sufficiently recognized, the author (I am inclined to think) starts with an unduly simplified conception of society, and he applies a principle which is appropriate only to this simple state in order to settle problems which cannot possibly arise except in a complexly organized society. As a result his political programme is rather arbitrarily and, indeed, confusedly constructed.

On page 66, e.g., he condemns the "compulsory conscription of troops" (even for purposes of defence, presumably) as an encroachment on personal liberty, and, on the same page, takes it for granted that loss caused by an enemy invasion ought to be shared by all, and not merely to be borne by those whose property is devastated. Why is a compulsory levy on personal service wrong, and a compulsory levy on goods right?

Again, while, in his opinion, the State should be the guardian of roads, the financial system and the sanitary system, it should not act as guardian for the upbringing and education of children—full authority and responsibility in these matters being assigned to parents.

Few economists and political theorists, I imagine, would agree with his view (unless I misunderstand him) that income-tax and "succession" duties are rather iniquitous confiscations.

The intention of this book—to review social institutions and practices in the light of moral principles—is admirable. Our criticism is that the author has not brought all the relevant principles to bear upon the problems discussed,

and that his practical conclusions are therefore not very well-founded. The discussion of the general principles of morals in the first four chapters, however, is much more penetrating and suggestive.

W. D. LAMONT.

A Common Faith. By JOHN DEWEY, Professor of Philosophy, Emeritus, in Columbia University. (New Haven: Yale University Press; London: Humphrey Milford, Oxford University Press. 1934. Pp. 87. Price $1.50; 7s. net.)

This little book embodies the eleventh series of the Terry Lectures at Yale on "Religion in the Light of Science and Philosophy." In it, Professor Dewey, famous as a reformer in the fields of Education and Philosophy, employs his wide-ranging and practical mind upon the vital task of clarifying the present confusion of civilized man about Religion. Readers will differ as to the degree of his success, but they will agree as to the great value of the attempt he has made in this illuminating little volume.

One leading conviction sustains the argument. There is potential in man a religious attitude towards life—a natural capacity for faith—which can so enrich life and advance human well-being, that if through misunderstanding or other causes it is suppressed, then human life as a whole is adversely affected and remains a poor and stunted thing.

It is to disentangle this precious factor from its supernaturalistic associations, which—however intelligible when considered historically—are to-day a hindrance to it; to lead it to find a valid object for its faith; and to encourage it to claim the wide field now awaiting it through the vast expansion of human interests in modern times—it is to do these things that Professor Dewey writes the three chapters of this book: I. Religion versus the Religious; II. Faith and its Object; III. The Human Abode of the Religious Function.

The quality of attitude which is called religious is found when the self is directed to ends sufficiently inclusive to unify it, whether those ends be the ends of morality, of art, of science, or of good citizenship. Faith, of which so much is made in Christianity, is needed here also. "For all endeavour for the better is moved by faith in what is possible, not by adherence to the actual." And its Object—the only possible one, Professor Dewey thinks, in the light of modern research—is not a supernatural Being or beings, but those "inclusive ideal ends, which imagination presents to us and to which the human will responds as worthy of controlling our desires and choices."

To these ideal ends, considered as arising naturally out of experience and acting creatively within it, Professor Dewey is willing to give the name of "God." Though the use of this word may be misleading, he thinks it may perform the service of keeping alive a "natural piety" in which both supernaturalism and aggressive atheism are alike deficient, and it may protect man from a sense of isolation and despair or defiance.

In his concluding chapter Professor Dewey surveys the social situation of Religion to-day. Through the enormous expansion of non-religious interests traditional churches have been gradually crowded into an ever-narrowing corner, and this shift in the "social centre of gravity" from a condition when Religion and Society were coterminous is "the greatest change that has occurred in religion in all history." Both Catholic and Protestant views as to the cause and cure of this dualism of secular and sacred are rejected, and the supernaturalism (which includes all forms of Theism) which they advocate necessarily produces in the modern world the very division they are trying

to heal. A natural religious idealism, on the other hand, can make itself felt throughout the whole social life of man, for it would accept "the responsibility of conserving, transmitting, rectifying, and expanding the heritage of values we have received," and this provides the elements for a religious faith, unconfined to sect, class, or race, which "has always been implicitly the common faith of mankind."

Liberal theologians, at any rate, will agree with much that Professor Dewey contends for, but while they are themselves critics of certain ideas of the supernatural they will think that in rejecting every form of Theism he has thrown out the baby with the bath. Surely it is not true that "all that an Existence (of God) can add (to ideals) is force to establish, to punish, and to reward" (p. 44), since the mode of God's action belongs, according to most Theists, to another order, namely, that of rational persuasion. And is it quite as certain, as Professor Dewey thinks, that all forms of religion in which there is a reference to a Being transcending the world even though immanent in it, distract human energy? At any rate, a unification of the self, an enhancement of its power, and a deepened sympathy with all human concerns, is claimed by those—and they are many even to-day—whose experience is strongly controlled by such an idea. However that may be, Professor Dewey would welcome all who shared his Common Faith, even if they went beyond it, and, much as he criticizes the churches, he is willing to assign them a function—provided they become socially minded—in the regeneration of society.

The questions on which debate will be aroused by this book are always important living issues in modern life—a fact which shows the value of Professor Dewey's book as a stimulus to thought.

A. E. Elder.

Reason. A Philosophical Essay with Historical Illustrations. By Thomas Whittaker. (London: Cambridge University Press. 1934. Pp. 217. Price 10s. 6d.)

In this volume the distinguished author of *The Neo-Platonists* has gathered together contributions to philosophy which he has made over a period of more than twenty-five years. They comprise (in order of date) the account of the philosophies of Comte and Mill and Schopenhauer written for the series *Philosophies Ancient and Modern* in 1908 and 1909 respectively; the article on "Reason" from the *Encyclopaedia of Religion and Ethics* (1918); and the discussions on "Vico's New Science of Humanity," contributed to three numbers of *Mind* in 1926, and on "Transcendence in Spinoza," which appeared in the same journal in 1929. These are prefaced by a shorter Introduction in which the author links together the discourses which follow and expresses his own philosophical *confessio fidei*. Hegel is right to place "conscious philosophizing beyond religious faith as the way in which man disinterestedly contemplates the universe." "If a final philosophy shall come, we may look forward to it as destined to be in the future more unquestionably the queen of the sciences than theology ever succeeded in being in the Middle Ages. This, however, must be entirely by free consent, not by a cunning or violent bending of the will to the purposes either of a select few or of a dominant many." Many who remain uneasy at the royal prerogatives assigned to philosophy will emphatically endorse this last sentence, while dissenting (perhaps) from the severe criticism of medieval thinkers which it may be held to imply.

Readers of philosophical literature will welcome the opportunity given

here to read Dr. Whittaker's shorter writings in a single compendious volume. By the same token, as they have all been published before, some a generation ago, comment seems here not to be called for. I shall content myself with a very brief, though a very grateful, notice.

The essay on "Reason" is placed first of the reprinted papers, and the remaining chapters are, according to the sub-title of the book, "illustrations" of it. They are in fact both more and less than this. The reader is not, I think, left with the impression that a single thesis has been illuminated by a succession of "illustrations." But that is because the author has not presented the thinkers under review from a single (over-simplified) standpoint. His fairness and breadth of sympathy is indeed proved by his appreciative treatment of philosophers as diverse and as mutually incompatible as Comte, Schopenhauer, and Spinoza. In his opening pages he has something to say of the characteristics of English philosophy; these chapters are a good example of that un-doctrinaire and comprehending sympathy which is perhaps specially a quality of English philosophical criticism at its most humane.

If one of the discussions may be selected for separate mention, let it be the last, in which Dr. Whittaker, writing of Spinoza, repudiates the view, so popular in certain quarters abroad, that the chief significance and dominant note in Spinoza's system is to be found in its determined naturalism. The parallels he here adduces between some of Spinoza's utterances and some culled from Bruno and Neo-Platonism are of particular interest.

But (if it is not ungrateful to close on a more carping note) I do not think justice can be done to either Comte or Mill if they are run, as here, in double harness. And Dr. Whittaker's estimate of Schopenhauer strikes one as altogether too generous. But it is the kindly English way to admire wrong-headedness if only it is uncompromising enough.

J. W. Harvey.

The Behaviour of Animals: An Introduction to its Study. By E. S. Russell, O.B.E., D.Sc., F.L.S. (London: Edward Arnold & Co. 1934. Pp. viii + 184. Price 10s. 6d.)

No science in its inception was ever so richly endowed with subject-matter as was animal psychology, and no endowment could have proved more cumbrous to deal with or more inhibitory to the proper arrangement of an organized branch of knowledge. A wealth of information about the ways of animals, a ready general interest shown by almost everybody in the subject, and an almost inevitable anthropomorphic bias of most observations and interpretations, have always acted as a hindrance to the steady, orderly, and unified growth of a system of scientific generalizations derived from controlled observation and experiment. As a result there is no one science of animal psychology. The more unscientific methods of the naturalist still obtrude themselves into the subject, and laboratory workers still occasionally react to anthropomorphic intrusions by simple mechanistic theories incapable of justification. It is not surprising, therefore, that the subject is open to criticism on many fronts.

Dr. Russell's new book is a more searching and a far more responsible indictment than animal psychology usually receives. The terms of his condemnation will become clearer if his proposals for its improvement are first considered. What he in effect says is: (*a*) Animal psychology should be abandoned by those trained in the experimental study of behaviour, and handed over to zoologists; (*b*) all animal activity is linked together within

a single life-cycle, so that the real "directive" meaning of each individual act of animal behaviour can be defined only in relation to the needs it fulfils within that life-cycle; and (*c*) rather than continue as we have done by "causal-analytical" laboratory investigation (to use his term for the usually accepted method of scientific investigation), we should use the "direct" method of straightforward observation, preferably in natural surroundings, and develop a science of "broad facts" encompassing everything from ecology to perceptual analysis.

The first of these proposals is praiseworthy in its aim to bring animal psychology closer to zoology. It has, however, to be remembered that zoologists and students of animal behaviour are both highly trained in a variety of specialized but separate techniques. It is no more possible for an average scientific worker to perform research in both these fields than it would be for one man to develop physiology and atomic physics adequately and at the same time. Something that each has to say is relevant to the science of animal behaviour, but as a rule it takes two people to say the two things.

Admitting, however, that animal psychology reaches into both the zoological and the animal behaviour laboratories, and realizing the difficulty of one man being in both places at once, there have still to be considered Dr. Russell's criticisms of present methods in the study of animal behaviour, and his proposal to replace them by a new direct organismal approach.

In Dr. Russell's opinion, the study of animal behaviour has fallen on evil days, because it is sharply divided between the "physiologists"—his general term for experimentalists who study the behaviour of animals by experimental laboratory methods, and who attempt to frame their conclusions in the exact language of experimental science—and the "psychologists," who observe the "natural" behaviour of intact animals, mostly in normal surroundings, and who describe what they see in simple, plain language—interpreting as they go along, and as they see fit. Dr. Russell attributes this regrettable dichotomy to the Cartesian view of the dualism of mind and matter, a view to which he does not hold. His argument implies that the "physiologists" investigate animals as "matter," and the "psychologists" investigate them as "mind." Since he disapproves of the application of mechanistic "causal-analytical" methods in the study of animal behaviour, it also suggests that the student who uses these methods necessarily does so in conscious or unconscious, but in either case in misguided, acceptance of the philosophy of Descartes. This is a fair deduction from Dr. Russell's views, but it is a conclusion that is highly questionable. There is only one way of performing acceptable scientific work in biology—by patient observation of situations whose constituent parts are capable of isolation and control, if need be by experiment; and there is only one way of expressing the results of scientific observation—by the use of non-ambiguous "objective" terms which have precise meaning, and if possible by reducing scientific conclusions to generalizations (laws or formulae) of value for purposes of prediction. Animal psychology has been judged in the past, and will continue to be judged, not on the basis of the merits or demerits of classical materialism, but on the basis of its acceptance of this scientific method, and this is a fact which no philosophy, whether mechanistic or vitalistic, can assail.

In his other attacks on the "causal-analytical" approach to the study of animal behaviour, Dr. Russell freely lays himself open to counter-attack. For example, he is quite unjustified in his wholesale condemnation, without proper examination, of what he calls "the mechanistic reflex theory." The more radical mechanists probably err in the extent to which they push their

facts, but in spite of their mistakes there is a large body of data regarding the "reflex" in behaviour, and a superstructure of theory, which are quite irrefutable. Dr. Russell also misrepresents what is the generally recognized scientific approach to studies of animal behaviour. Thus, he contends that "the mechanistic method . . . regards behaviour as being directly determined by the physical and chemical stimuli impinging upon the sense organs of the animal. It excludes the possibility that the animal exhibits directive activity in relation to its needs, and that it responds to its own perceptual field." This is a wholly unfair and incorrect statement of any mechanistic view of animal behaviour, however radical, and the force of its condemnation by Dr. Russell hardly equals that with which it would be greeted by any serious and responsible mechanist.[1] Not only does "mechanistic" animal psychology recognize the existence of "needs" in animals (e.g. sex, hunger, etc.); it has devoted considerable trouble to defining them, to discovering how they influence overt behaviour, to measuring their relative strengths, and where possible to elucidating their physiological backgrounds. To-day, the study of what are called animal "drives" forms no small part of animal psychology. From the point of view of the mechanistic approach, animals are unquestionably recognized as living creatures whose activities are directed or driven along specific channels by specific bodily processes. "Reflex theory" only enters into the picture when attempts are made to explain the constantly changing environmental adjustment of an animal in answer to these drives.

Unfortunately for what conviction Dr. Russell's criticisms of modern experimental animal psychology might otherwise carry, his own "direct" and "organismal" methods seem no different in principle from the very methods he discredits. What he proposes is simple objective observation of animal activity in its totality. "Let us think of behaviour," he writes, "as one of the forms of response shown by the organism as a whole." If the mechanistic student of animal behaviour has never taken the trouble to voice these sentiments, there has never been anything in his attitude which has suggested that either direct observation or the proposition that animals are organized systems is a concept to which exception should be taken. But Dr. Russell styles his suggestions a new "organismal" approach to the study of behaviour, affirming his points of view as "organismal" or "holistic." It is here that there seems to be a serious discrepancy between what he declares to be his philosophy and what he regards as the new "method" this philosophy stimulates. In place of the usual "causal-analytical" approach, his advice is to begin with the "whole" and work down to the "parts," and not to work up from the "parts" to the "whole." This method, however, is precisely the "causal-analytical" method that is employed, not only in experimental biology generally, but also in the most mechanistic developments of experimental studies of animal behaviour. In biological science, the "whole," as something comprising integrated "parts," is given, and its behaviour has first to be described, before investigation of its integrated parts can properly begin. The problem is not to build up "wholes" out of "parts," but to find "parts" in "wholes." For example, the modern concept of the reflex, so far as gross behaviour is concerned, did not come into being through abstract theorizing. It came by study of animals.

On the other hand, the philosophies of holism and its near relative, or double, emergent evolution, owe their primary inspiration to the fact that the gross phenomena of direct experience (e.g. animate and inanimate existents) cannot be reconstructed by the recombination of hypostasized

[1] See, for example, C. L. Hull, *Psychological Review*, 1930, 37, p. 242.

scientific isolates (e.g. electrons and reflexes). Those who, like Dr. Russell, criticize scientific method because the results of scientific analysis do not correspond with what is seen in immediate experience, misconceive the usual direction and intention of scientific investigation. Mechanistic students of comparative psychology have never pretended to do more than try to provide exact descriptions of animal behaviour, and, if possible, to uncover principles —or mechanisms—from which the various phenomena of animal behaviour can in turn be deduced. This method hardly bears any relation to the philosophy of holism—but it is the method by which Dr. Russell himself has made several distinguished contributions to animal psychology.

The optimism of Dr. Russell's belief "that we can get a very long way in the study of the behaviour of animals by the use of the simple objective method (simple direct observation) combined with simple experiment," may well be admired, even if it cannot be shared. But only surprise can be felt at his opinion that "it should be possible to determine by direct observation, preferably of animals in their natural surroundings, exactly to what they do respond." The whole experience of animal psychology has proved the fallacy of this expectation. Even the attempt to discover if an animal has colour-vision, a problem which at first sight appears very simple, is fraught with pitfalls for the unwary. An animal that appears to be responding to the colour of an object may in fact be responding to its brightness, to its shape, or even to some unsuspected element in the background. Attempts to short-cut proper scientific investigation of the perceptual world of animals cannot fail to lead back to blatant anecdotalism.

In spite of the contradictions in Dr. Russell's book, there is much of value to be learned from it. But the contradictions are by no means few. Mechanism as a philosophy is severely assailed, but descriptions of animal behaviour framed in the extremest mechanistic terms are quoted with approval. Simple experiment only is advised, but the conclusions of most elaborate experimental investigations are adduced to drive home one point after another. The value of the book lies essentially in the fact that it draws attention to a sphere of animal psychology—namely, the behaviour patterns which make up the whole life-cycle—which tends to be forgotten in the press of laboratory investigation. Its value would have been much greater if Dr. Russell had made his plea for the study of behaviour by the methods of the naturalist without attempting to strengthen his arguments by an attack on the methods of experimental animal psychology.

S. Zuckerman.

Value and Reality in Bradley's Philosophy. By Torgny T. Segerstedt. (Lund: A. B. Gleerupska Univ-Bokhandeln. 1934. Pp. iv + 264. Price 5 Kr.)

This book is another sign of the growing interest in English philosophy on the Continent. What is peculiar about it is that it is addressed to English readers in their own language by a continental writer with a particularly wide knowledge of the English literature upon the subject with which it deals, and comes, therefore, as a particularly welcome gift. This circumstance seems to bar meticulous criticism of linguistic details or of what printers call the "format" of the book. Such criticism as would otherwise be permissible only illustrates the extreme difficulty, under present circumstances, of producing books in the language of one country through the printing-press of another. Leaving the external form and coming to the matter of Dr. Segerstedt's book, readers of Bradley are familiar with the regrettable absence in

all he wrote of any treatment of the idea of value at all comparable in fullness with that which we have in *Appearance and Reality* of the idea of reality. It has also frequently been noticed that, in what he does say of it in his later book, *Essays on Truth and Reality*, he seems, in emphasizing *satisfaction* as the criterion, to have departed from the position of the earlier work, where the emphasis was on the logical principles of inclusiveness and consistency; and that to the extent of suggesting to some of his critics a wholesale capitulation to Pragmatism. The aim of the author is to try to carry the hints that Bradley has given of his views on the subject a step further, and to show in more detail how it is possible to unite the two criteria without compromise to his Absolutism. His book is divided into four parts, headed respectively "The Idea of Reality," "The Idea of Value," "Valuation and Value," "The Judgment of Value." In the course of his argument, most of the chief problems that face the student of Bradley are touched upon: the status of the idea of perfection as, like that of reality, the presupposition of all qualitative determination rather than itself a quality; the relativity of truth and error, good and evil; the identification of reality with experience. But they are all subordinated to the main object of the book, which is to show that, while the idea of "satisfaction" is the bridge by which Bradley passes from the idea of reality to that of value, it is no excrescence from his system, but the extension to concrete experience of the same principle as that which underlies abstract thought in the field of theory. It would exceed my limits to give his argument even in outline. I will merely say that I do not remember having met with a clearer statement of main issue on the whole subject than that contained in the last three or four pages of the book, under the heading of the relation between Completeness and Perfection; or with a clearer statement of the line in which the solution is to be found than that contained in the sentence on p. 259: "It is the aspect of experience, reality as feeling, which has compelled us to pass over from completeness to perfectness." There are naturally not a few points on which questions might be raised as the true interpretation of so difficult a writer. But any disagreement with the author I have felt on particular points does not affect my conviction that this book ought to occupy a high place in the growing library of Bradleyan literature.

J. H. Muirhead.

Morals and Politics: Theories of Their Relation from Hobbes and Spinoza to Marx and Bosanquet. By E. F. Carritt, Fellow of University College, Oxford. (London: Oxford Clarendon Press, Humphrey Milford. 1935. Pp. 216. Price 6s. net.)

The interest of Mr. Carritt's book is not to be measured by its modest dimensions. It is an attempt to apply to politics the doctrine of the ultimateness of the idea of right, which has recently found favour in Oxford, and which he has himself expounded from the side of ethics in his *Theory of Morals*. As the object of the latter was to show that rightness of action is a quality not further analysable, so his object here is to show that all attempts to explain "the recognition of political obligations in terms of something else lead to confusion, self-contradiction, and the evident misdirection of facts which we cannot doubt." Whether we accept or reject this view of the idea of right, we must agree that it is of importance that it should be worked out in detail as a basis both of the criticism of other views and of constructive theory. Only so will either its friends or its critics be able to judge it (as in

the end all philosophical doctrines must be judged) by their fruits in harmonizing the facts of experience and in guiding to broad-minded practice. Mr. Carritt has shown himself well equipped by his wide reading, philosophical acumen, and literary style for the former part of this task. In connection with the two longest critical sections, those on Kant and Hegel, his references to their less known works and particularly to their views on the philosophy of history, seem to me particularly valuable. One can only all the more regret that he has left so little space (barely 30 pages) for the constructive part, and that even in what he there gives there should be so little that bears directly on the great political issues that are at present distracting the world. We may perhaps hope that, as he seems to hint, he has more in reserve upon this for a future occasion.

Meantime, what he has done leaves a reviewer free to confine himself to the philosophical problems that are raised. I have left myself space for only a word or two upon the main one: that of the ultimateness of the idea of right and the interpretation put by the writer on the views of those who have denied it. It may very well be that he is entirely right in refusing to accept what he conceives of as the one alternative to his own view, while he is entirely wrong in so conceiving it. I believe that this is precisely the case. I believe that he is on strong ground in rejecting the view that the ground of moral and political obligation can be stated in terms of expediency, desire for profit or advantage, individual satisfaction or interest in the ordinary acceptation of any of these terms. Right and obligation are the words we use to indicate the claim of something higher and more imperative than anything that is commonly meant by them. The question from the time of Socrates has been wherein this something consists. And the answer of at least one line of thought to which the greatest of the ancients and very great modern philosophers (though doubtless with some ambiguity in their phraseology) have in the main adhered, is that it consists in a form of human life in which the ideal values, inadequately summarized as truth, beauty, and goodness dominate individual and communal thought, feeling, and action. Until it is clearly realized that it is this, and not any surrender to the happiness theory, that is offered as a principle of reconciliation in the age-long controversy between utilitarians and rectarians (to invent a much needed term), all historical criticism must result in what Mr. Carritt calls "confusion, self-contradiction, and the evident misdirection of facts." But I am loth to end this review on a note of controversy, and I select a sentence which might be made the basis of agreement. "I think," writes Mr. Carritt (p. 186), "that my responsibility or duty to a State can always be fully stated in terms of responsibility or duty to other men and their claim or right against me, the ruler having as such no special claim." I could accept this in two conditions, first that "other" should be interpreted as not excluding the existence of a deeper bond of unity in the light of which the otherness is a superficial appearance, and secondly that "men" be interpreted to mean not merely members of the genus "wie es steht und geht," but bearers of souls that are still in the making and can find no real happiness or satisfaction in anything short of their full inheritance of soulship. I have left untouched two questions of which Mr. Carritt has a good deal to say: that of the value of the national State and that of the existence of a general will. But I believe that when these questions are approached from the point of view above indicated, even the theories, in the chastisement of which Mr. Carritt's whips are turned into scorpions, assume a far less sinister aspect than that which he attributes to them.

J. H. MUIRHEAD.

Philosophers Speak for Themselves. Guides and Readings for Greek, Roman, and Early Christian Philosophy. By T. V. Smith. (U.S.A.: University of Chicago Press. Great Britain and Ireland: Cambridge University Press. 1934. Pp. xxiv + 800. Price 21s.)

The plan of this book—to present a general conspectus of ancient philosophy, by means of statements of the philosophers themselves rather than through modern interpretations, is worthy of commendation, and the extracts will encourage students to go further in making acquaintance with the originals. The choice of selections involves a difficult problem of proportion as regards both the space allotted to each thinker and the illustration of different aspects of their thought. The solution, of course, depends largely on the standpoint of the editor as interpreter and teacher. This is indicated in some degree in the admirable and disarming "Friendly Preface." The following observations on the result take into account the colossal nature of the enterprise. It is assumed that though the work is not intended for advanced students in ancient philosophy, it does aim at presenting the principal and most influential conceptions of the philosophers surveyed.

The extracts from fragments of the pre-Socratics are, on the whole, representative. Although we miss illustrations of one or two important theories, as, for instance, Democritus' view of sense-perception, which might have been substituted for some of the ethical sayings, our questioning is met by the explanation in the Preface referring to the adequacy of Dr. Nahm's *Selections from Early Greek Philosophers.* Coming to Socrates, peculiar difficulties arise on account of the opposite interpretations of the significance of the Platonic Socrates prevailing to-day. Yet since Socrates' account in Plato's *Phaedo* of the development of his philosophy is given as truly Socratic, there should surely have been added some passages from the earlier Platonic Dialogues, illustrative of his methods of treating definition, and the universal. The statements also of Aristotle about the contributions we owe to Socrates seem more demanded in the Socratic than in the Aristotelian material, where they can be found in Aristotle's survey of his predecessors. Aristotle is not even referred to in the introductory paragraph as one of the sources for our understanding of Socrates' thought. The whole of Plato's *Apology of Socrates* is appropriately included as a portrait of the man and his mission, but that of Xenophon is less essential.

In spite of Professor Smith's regrets (Preface) for his abbreviations of Plato, we could not expect more than two hundred and eighty-five pages devoted to Plato in comparison with one hundred and seven for Aristotle—too great a disproportion. But serious questions of proportion arise within the Plato section. The reason for the very slight representation of the *Republic,* easily available elsewhere (see Preface) may be accepted. But the inclusion of the greater part of Plato's Seventh Epistle, as "Apologia pro Vita Sua" (with the important exception of the paragraph on philosophic method which is summarized) and of almost the whole of *Laws X* in illustration of Plato's later views on the necessity of elaborate religious observance to the stability of the State, as well as all the *Symposium,* must be questioned. The artistic genius of Plato might be illustrated in a smaller compass, whilst the doctrine of spiritual love in philosophy is found in perfection in Diotima's speech alone. Almost the whole of the *Philebus,* the metaphysical difficulty of which is well known, is given. Some of this is valuable illustration of Plato's later metaphysical and logical standpoint, as well as of his ethical ideal for the individual. But all this material might have been abridged to make room for passages of outstanding importance from the *Sophist.* Of the logical

development of Plato's later period there are hardly any illustrations. The changes in the Theory of Forms are in part suggested by the selections from the *Parmenides*, and the extracts from the *Theaetetus* are important for theory of knowledge. But there are no selections from the *Timaeus* to throw light on Plato's doctrine of the world-soul and of space, nor any evidence (except in notes on Book I of Aristotle's *Metaphysics*) of Plato's relations to Pythagorean mathematical ideas. The inclusion of the great myths presents the Platonic theory of soul at least from the exoteric standpoint.

The gaps in the philosophy of Aristotle are still more striking. The Preface, indeed, gives reasons for omitting his logic as "of least interest and importance for the elementary student and the general reader." Yet if these readers are to "sense his main problems and his manner of treating them," it seems essential to admit illustrations of the leading principles of his method, in addition to the "Four Causes" (illustrated from the *Physics* and *Metaphysics I*). The doctrine of the Categories (Prior Analytics and Metaphysics) does not appear at all, nor the problem of knowledge of the individual and the universal (Posterior Analytics and Metaphysics). For the doctrine of Substance, *Metaphysics VII* is more essential than *VIII* (which is given), whilst the principle of the "Potential and the Actual" barely appears except as culminating in the "First Mover" (*Metaphysics XI* (*XII*?) 7). Psychology is not represented, since there is no passage from *De Anima*. Of the *Ethics* the whole of Books I and X are given, and the chapters on the principle of the "Mean" in II. But a very imperfect notion of Aristotle's ethical position is afforded without reference to his treatment at least of the voluntary and the involuntary, the portrait of the great citizen as high-souled man, and the principle of practical wisdom. From the *Politics* we have only the chapter on education. It may be urged that more space might have been allotted to Aristotle at the price of some reduction in the Post-Aristotelian selections. As regards Epicureanism, the *Epistle to Pythocles* on Meteorology might have been omitted. The other two *Epistles* on Human Life and on the Physical System are important. But since the physical doctrine of Epicurus is so closely followed by Lucretius, the inclusion in the Roman part of the whole of Book I, *De Rerum Natura*, is probably due to its poetic qualities rather than its philosophic contribution, and gives disproportionate space to the later Atomist theory (thirty-seven pages with Epicurus). Also on the assumption that philosophy itself rather than the historic interest is the main subject, Cicero's treatment of the Athenian schools is not of first-rate importance, nor Polybius on the Roman constitution. It might be added that the appendix on Scholastic philosophy seems outside the essential scope of the work, especially since selections from the originals are not given, except in the case of the ontological argument of Anselm.

Fifteen pages only are allowed to Greek Stoicism, but this is compensated for in the Roman part. The space given to the Academic Sceptics might be reduced as well as that taken by Roman Stoicism (forty-three pages). And in another edition I should plead for more than fourteen pages for Plotinus, the last representative of the great Greek tradition.

It is an interesting innovation to include amongst illustrations of the spirit of ancient philosophy passages from the New Testament. It must be questioned, however, whether any just expression of the mind of Jesus prior to all accretions of theological dogma can be presented in the "Sermon on the Mount" alone. The slightest attempt to abstract a philosophy of Jesus from the narrative of the first three Gospels, apart from the record of His life, ought, it seems, to include the Parables. For the philosophy of St. Paul we are given two speeches from the Acts and chapters from the Galatians. There are a few extracts from the fourth Gospel and selections from Origen's refuta-

tion of Celsus, and the *Confessions of St. Augustine*, as illustrations of early Christian philosophy.

The translations, with some important exceptions, are taken from the Loeb classical library. It is unfortunate that MacKenna's translation has not been used for the selections from Plotinus. Readers who have grown up with the "Authorized Version" of the Bible will suffer from the style of the Chicago "Good speed" translation of the New Testament.

The Introductions to the various philosophers contain some brilliant *aperçus*, and their smart and epigrammatic character, if somewhat journalistic, is no doubt adopted with understanding of the kind of appeal most stimulating to the students for whom the book is primarily intended. It does, however, tend to the slurring over of some subtle distinctions of Greek thought as in the characterization of the φύσις or ἀρχή of the Milesian thinkers as "world-substance."

It is difficult to say whether those accustomed to the austerer manner of European scholars will find a useful torpedo-shock in such phrases as the following:

"Xenophanes we have remarked as an apostle of some all-overishness as deity."

"The Lyceum goes progressively eclectic.'

"The Big Three of Classical Philosophy."

"Jesus' emphasis on the human soul as beggaring in value all human exchange."

"The sacrifice of Christ—a guarantee that the good would at last get the goods."

Augustine "blaming the fall of Rome on Paganism."

Augustine "plays down human initiative and creativeness, and plays up the omnipotence of God."

"Paul founded the Church as a far-flung and actually going concern."

H. D. Oakeley.

Science and Sanity : An Introduction to Non-Aristotelian Systems and General Semantics. By Alfred Korzybski. (Lancaster, Penn., and New York: The International Non-aristotelian Library Publishing Company, 1933. Pp. xx + 798. Price, Single copies $7.00, with "Educational Discount" $5.50 (post paid).

This is a very difficult book to review. The author himself, commenting on the numerous and complicated problems which are involved, states that they cannot be solved except by a general study of Mathematics, Mathematical Foundations, History of Mathematics, Logic, Psychology, Anthropology, Psychiatry, Linguistics, Colloid Chemistry, and Neurology, and the book comes to us with an impressive array of appreciations contributed by workers in almost all these fields. The present reviewer cannot pretend to this encyclopaedic knowledge; he feels competent only to review those portions of this work which trespass on the domains of Mathematics, Mathematical Physics, and Mathematical Logic; and he cannot repress a feeling of dismay at the somewhat disappointing cable sent to the author by Bertrand Russell. Lord Russell, who is undoubtedly one of the most eminent authorities on the subject of the logical foundations of Mathematics, has contented himself with this message to the author: "Your work is impressive and your erudition extraordinary. Have not had time for a thorough reading, but think well on part reading. Undoubtedly your theories demand serious consideration."

The second difficulty which confronts the reader of this volume, which runs to nearly 800 pages, is the lack of any orderly or systematic development of the subject from first principles. The very first chapter contains technical terms, such as the frequently employed term "elementalistic," which do not receive either there or anywhere else in the book satisfactory definition. In these circumstances it is extremely difficult to do justice to the author of this work. Many of the learned authorities whose appreciations are quoted on the dust cover appear to have found themselves in the same difficulty. Their appreciations are mainly expressions of pious hope that further development of the ideas and methods of Korzybski will lead to revolutionary advances in all fields of human knowledge. It may very well be that there are important, valuables and fruitful ideas concealed in this work, but it is a tremendous task to unearth them. The general impression which one gathers is that the author believes himself to be in possession of a new fundamental principle and that he hopes that the application of this principle to every field of modern Science will result in enormous progress and clarification. For my part I do not profess to understand the general principle, nor have I met anyone who has perused the book and has been able to apprehend its basic idea.

The author's investigations enter the field of Mathematics at several points throughout the book. The whole of Part VIII is professedly devoted to the Structure of Mathematics. In fact, it consists of an elementary introduction to the calculus and to analytical geometry, and although I have read this section carefully I cannot see that it throws any light whatever upon the fundamental non-Aristotelian principle introduced by Korzybski. There are other mathematical references in Part IV dealing with the notion of infinity and infinitesimals, but these do little more than provide elementary introductions to these well-known problems. The essence of the author's contribution to Mathetics seems to be in Part V, which is entitled "On the Non-aristotelian Language called Mathematics."

As I understand the matter, the author approaches this problem from the following standpoint. He notes that as a matter of history Newtonian Dynamics has been replaced by the non-Newtonian Dynamics of Einstein's Theory of Relativity; that Euclidean Geometry has been replaced by the non-Euclidean Geometry of Riemann; and that in Mathematics it is even suggested that Aristotelian Logic has been replaced in the works of Brouwer by a non-Aristotelian Logic which denies the principle of the excluded middle. Inspired by these revolutionary changes in Dynamics, Geometry, and Logic, the author desires to make a still more fundamental change in our intellectual outlook. Einstein has attempted to abolish the concept of simultaneity; the non-Euclidean geometrists have dispensed with the famous parallel of postulate; it is alleged that Brouwer has abandoned the law of the excluded middle, and now Korzybski wishes to abandon the principle of identity and then to erect a new non-Aristotelian Logic and to apply it to particular branches of Science.

It is difficult to determine what Korzybski means by this denial of the principle of identity. It seems from some passages in his work that all that is meant is the denial of any identity between the objects spoken about and the words with which we speak about the object. But obviously this distinction is far too trivial to form the basis of a large and impressive system such as that which Korzybski hopes to develop. The author relies hopefully upon the work of the Intuitionist School of mathematicians of whom the leading exponents are Brouwer and Weyl, but it seems that there is here a fundamental misunderstanding. It is commonly said, even by professional mathematicians who should know better, that the work of Brouwer and Weyl is essentially the

denial of the excluded middle as applied to mathematical entities. This view is completely false, and its falsity vitiates some of the most important arguments advanced by Korzybski.

The work of the Intuitionist School of Mathematicians has recently been made easily available to all English students in the work of Max Black "On the Nature of Mathematics." From the admirable summary made by Black it is evident that the essential feature of the Intuitionist School is their insistence on the fact that mathematical entities are things constructed by the mathematician, and that their denial of the third law of Logic is only apparent.

The actual results obtained by the application of Korzybski's non-Aristotelian system to the foundations of Mathematics are disappointingly slight. The author himself has relegated to the future the discussion of most of the important problems. Almost the only result obtained in this book is the semantic definition of number in terms of unique and specific symmetrical or asymmetrical relations, together with the semantic definition of Mathematics which may be stated as follows: "Mathematics consists of limited linguistic schemes of multi-ordered relations capable of exact treatment at a given date." This seems to be the sum total of the non-elementalistic contribution to Mathematics. The present reviewer has the greatest respect for the industry and the erudition displayed by the author of this most learned work, and it is with extreme regret that he has to confess that he has failed to perceive the significance and the importance of the new principle here introduced.

G. TEMPLE.

Russian Sociology: A Contribution to the History of Sociological Thought and Theory. By JULIUS F. HECKER, Ph.D. With a Foreword by SIDNEY WEBB, P.C., LL.B. (London: Chapman & Hall. 1934. Pp. xvi + 313. Price 8s. 6d. net.)

This book, written with care and erudition, is a demonstration that the Russian mind has given itself to the study of the theory of society for over a century. The cause of this, as Dr. Hecker says, was, very largely, Russia's social discontents. We, however, in our bourgeois way, have lived through a period of vast social and political changes without having had our intellectuals attracted towards the contemplation of political theory to an extent at all comparable to what our great-grandfathers or their grandfathers experienced. The fact, then, that practical ferments are not necessarily accompanied by intellectual fermentation is a reason for commending the persistent study of sociological theory in Russia—or would be, were theorizing a commendable exercise. Russian sociological literature, in its considerable bulk, is not at all negligible in comparison with the sociology of other countries.

Indeed, Mr. Hecker has to give an account of so many divergent views that his readers' attention is decidedly hampered. He has attempted, it is true, to mitigate this inevitable difficulty by classifying his authors as Russophils, Slavo-phils, Westernists, etc., and by indicating their relations to the political vicissitudes of their country. Nevertheless, he undertakes to summarize the views of at least twenty-seven authors, each of them receiving at least a few pages, and some an entire chapter. Between them, they tackled a prodigious number of problems; and if Mr. Hecker's readers have a memory at all comparable to mine, they will find that his book imposes a considerable strain upon that faculty.

From certain incidental remarks, it is plain that Mr. Hecker's sympathies are with the present U.S.S.R. "Anti-Marxian errors" (p. 296) are not to

his liking. If a sociologist neglects the verities of historical materialists, he is said to produce a series of "pitiful ifs" (p. 224). Since, however, Dr. Hecker appears to maintain that "ideologies" should not be, and cannot be (p. 225) impartial, it may not be entirely clear why he rebukes Solokin, say, for his lack of impartiality. And I cannot think that Dr. Hecker is impartial in his use of dyslogistic adjectives like "brutal" and "doctrinaire."

In the main, however, Dr. Hecker, so far from being a propagandist in this particular book, is not at all anxious to point a moral (except with respect to the correlation between political experience and political theory). He does not merely seem to be detached, but really is so. He does not attempt to show, for example, that the "Marxo-Leninist" theory of society is a great rock amid the shifting sands of other theories. On the contrary, Marxo-Leninism takes its place, in this book, among the other theories, and the account of it is succeeded, in Dr. Hecker's exposition, by accounts of other views which assert very damaging criticisms of Marxo-Leninism. In short, the book is in no sense a primer for communists; and Dr. Hecker is studiously moderate (e.g. p. 299) in the claim he rightly makes for the importance of Russian sociological theory.

JOHN LAIRD.

The World and God. The Scholastic Approach to Theism. By the Rev. HUBERT S. Box, B.D., Ph.D. With a Preface by the Rev. M. C. D'Arcy, S.J., M.A., Master of Campion Hall, Oxford. (London: S.P.C.K., New York: Macmillan Co. 1934. Pp. xii + 208. Price 7s. 6d. net.)

In January last I called the attention of readers of PHILOSOPHY to Dr. R. L. Patterson's book, *The Conception of God in the Philosophy of Aquinas*, as evidence that St. Thomas had come to be accepted by English students of philosophy "as one of the world's great thinkers, the importance of whose contribution to philosophical speculation no longer needs to be defended against a tradition of anti-scholastic and anti-theological prejudice, but may be taken for granted, and its value criticized with the same combined respect and freedom as we are accustomed to see used in regard to Plato or Aristotle, Descartes or Kant." Dr. Box's *The World and God* suggests that my remark was premature. Neither Father D'Arcy's preface with its (surely) unnecessary anticipation of surprise that an Anglican clergyman "should show such an acquaintance with what has often been thought to be exclusively Catholic," nor the body of the book itself, exhibits such an attitude as interested me in Dr. Patterson's work. There is no serious criticism in Dr. Box's essay, and little attempt to understand the grounds of those divergences from the position of St. Thomas which he has occasion to mention. He accepts without discussion the "clear-cut distinction between philosophy and theology" which he attributes to the schoolmen in general; a distinction which, although no doubt (as Professor Gilson has shown) it facilitated at the time the free pursuit of philosophical inquiry, was, I venture to think, on the whole rather prejudicial than otherwise to theology, and led, almost inevitably, to the position of the seventeenth-century deists. Like many of those who take this "clear-cut distinction" as axiomatic, Dr. Box does less than justice to the genius of St. Anselm.

Dr. Box's knowledge of the history of philosophy is not always adequate. He says, somewhat oddly, that "certain mediaeval philosophers" took a particular view, and then that "the schoolmen" taught the opposite; but he may here perhaps have been misled by M. de Wulf, who tends, inconveniently enough, to confine the term "scholastic" to those mediaeval

thinkers whose conclusions conform to his canon of orthodoxy. In repeating old complaints of the attitude of the schoolmen toward natural science, Dr. Box ignores recent study of the contribution of later mediaeval thought to the scientific movement of the sixteenth century. He has much to say of Kant, but his remarks do not suggest an intimate knowledge of that philosopher, with whose *Kritik der Urtheilskraft* he shows no acquaintance, even when dealing with aspects of Kant's thought which cannot be rightly judged without reference to it. A greater familiarity with them would perhaps have made him less ready to call Kant's arguments "ridiculous." One might be inclined, again, to doubt, after reading the chapters on "Value" and "the Ontological Argument," whether Dr. Box has ever heard of Plato. It is curious—though this is, of course, but a small point—that, almost immediately after citing a very similar speculation of M. Bergson's, he refers to Leibniz's view of God's relation to the monads without any mention of "fulguration."

On the whole, while I feel no doubt that the account contained in this book of the Thomist arguments for theism was rightly judged sufficient to entitle the writer to the degree as a thesis for which it was composed, the philosophical student of St. Thomas will not find it of any great assistance towards the understanding of his system or of its place in the history of thought.

C. C. J. WEBB.

Science and Monism. By W. P. D. WIGHTMAN, M.Sc., Ph.D. (London: George Allen & Unwin, Ltd. 1934. Pp. 416. Price 15s.)

This is the first volume in the new History of Science Library, edited by Professor Wolf. Dr. Wightman writes clearly, and manages to bring together a great mass of material over a very wide field without throwing any strain on his reader, skilfully using history as a means of forwarding philosophical analysis of conceptions.

The book falls into four parts. In Part I the general history of philosophical monism from early Greek times up to the second half of the nineteenth century is rapidly reviewed, stress being laid on the systems of Spinoza and Leibniz, who between them receive about one-half of the space devoted to this part. Dr. Wightman believes that the monism of Spinoza is the pattern of all future monism, and finds value in Leibniz as completing the philosophy of Spinoza, especially in regard to the interrelations of the concepts of natural science.

In Part II the story is taken up from the point of view of the endeavours mainly of physicists and biologists from the seventeenth to the nineteenth century to bring into a single system the apparent diversity of natural forces. It culminates in a chapter devoted to the monism of Haeckel, whose failure Dr. Wightman finds illuminating.

In Parts III (dealing with the data and concepts of natural science) and IV (dealing with monistic tendencies in the twentieth century) the writer endeavours to bring out the modern tendencies with regard to the questions of the validity of the concepts and methods of science, and of the possibility of bringing matter, life, and mind into a monistic scheme. In all this he finds his main inspiration in the writings of Professor Whitehead, whose work he looks on as having a marked similarity with that of Spinoza; but he quotes and uses most of the prominent books of to-day which deal with his topics. His book should serve as a useful guide to anyone anxious to get into touch with the modern literature dealing with the concepts of science from a philosophical point of view.

L. J. RUSSELL.

Books received also:—

J. W. Dunne. *An Experiment with Time* (Third edition). London: Faber & Faber Ltd. 1934. Pp. 288. 5s.

R. P. Phillips, D.D., M.A. *Modern Thomistic Philosophy. An Explanation for Students.* Vol. I. *The Philosophy of Nature.* London: Burns, Oates & Washbourne Ltd. 1934. Pp. xiv + 346. 9s.

W. Bernard, Ph.D. *The Philosophy of Spinoza and Brunner.* New York: Spinoza Institute of America Inc. 1934. Pp. 239. Cloth $2.50; paper $1.50.

J. Needham, Sc.D. *A History of Embryology.* Cambridge, at the University Press. 1934. Pp. xviii + 274. 15s.

A. C. Pegis, Ph.D. *St. Thomas and the Problem of the Soul in the Thirteenth Century.* Toronto: St. Michael's College. 1934. Pp. 213. $2.50.

C. M. Campbell. *Human Personality and the Environment.* London and New York: The Macmillan Co. 1934. Pp. x + 252. 12s. 6d.

A. J. Hopkins. *Alchemy: Child of Greek Philosophy.* New York: Columbia University Press. London: Humphrey Milford. 1934. Pp. x + 262. 17s. 6d.

S. E. Lang. *The Story of Philosophy in Verse. A Handbook for Amateurs.* Toronto: The Macmillan Co. 1934. Pp. vii + 101. $2.

Mrs. Rhys Davids, D.Litt. *Buddhism: Its Birth and Dispersal* (Revised edition). London: Thornton Butterworth Ltd. 1934. Pp. 256. 2s. 6d.

G. H. Turnbull (Compiler). *The Essence of Plotinus. Extracts from the Six Enneads and Porphyry's Life of Plotinus.* Based on the translation by S. Mackenna. (Foreword by The Very Rev. W. R. Inge, D.D.). New York and London: Oxford University Press, Humphrey Milford. 1934. Pp. xx + 303. $2.50; 10s. 6d.

S. C. N. Rao Sarode. *You and I. A Soliloquy, or a Philosophical Monologue.* Obtainable from the author, 8 The Mall, Lahore. Pp. 17.

E. Morgan, D.D. *Tao the Great Luminant. Essays from Huai Nan Tzu.* With Introductory Articles, Notes, Analyses. (Foreword by J. C. Ferguson, Ph.D.). London: Kegan Paul, Trench, Trübner & Co. 1935. Pp. xlv + 287. 10s.

M. Ginsberg, M.A., D.Litt. *Sociology.* London: Thornton Butterworth Ltd. 1934. Pp. 255. 2s. 6d.

E. Lindsay. *Losing Religion to Find It.* London: J. M. Dent & Sons. 1935. Pp. xii + 270. 6s.

W. V. O. Quine, Ph.D. *A System of Logistic.* (Foreword by A. N. Whitehead.) Cambridge, Mass.: Harvard University Press. London: Oxford University Press, Humphrey Milford. 1934. Pp. xi + 204. $4.50. 20s.

E. T. Bell. *The Search for Truth.* London: G. Allen & Unwin Ltd. 1935. Pp. x + 279. 7s. 6d.

C. E. M. Joad. *Return to Philosophy. Being a Defence of Reason; an Affirmation of Values; and a Plea for Philosophy.* London: Faber & Faber Ltd. 1935. Pp. 279. 7s. 6d.

A. Mansbridge, C.H., LL.D. *John Stuart Talbot and Charles Gore.* (Epilogue by The Archbishop of York.) London: J. M. Dent & Sons. 1935. Pp. xv + 90. 3s. 6d.

H. Bergson (Trans. by R. A. Audra and C. Brereton.) *The Two Sources of Morality and Religion.* London: Macmillan & Co. 1935. Pp. viii + 278. 10s.

R. Carnap. *Philosophy and Logical Syntax.* (Psyche Miniatures Series.) London: Kegan Paul, Trench, Trübner & Co. 1935. Pp. 100. 2s. 6d.

H. Gigon, Ph.D. *Ethics of Peace and War.* (Foreword by Lord Howard of Penrith.) London: Burns, Oates & Washbourne Ltd. Pp. xii + 68. 2s.

G. H. Mead. *Mind, Self, and Society. From the Standpoint of a Social Behaviorist.* (Ed., with Introduction by C. W. Morris). U.S.A.: University of Chicago Press. London: Cambridge University Press. 1935. Pp. xxxviii + 401. 22s. 6d.

J. S. Haldane, C.H., M.D., F.R.S. *The Philosophy of a Biologist.* Oxford, at the Clarendon Press. 1935. Pp. xii + 155. 6s.

N. Fialko. *Passivity and Rationalization.* New York: J. Lowell Pratt. 1935. Pp. 214. $2.50.

F. M. Cornford. *Plato's Theory of Knowledge.* (The Theaetetus and the Sophist of Plato.) (International Library of Psychology and Philosophy.) London: Kegan Paul, Trench, Trübner & Co. 1935. Pp. 336. 15s.

The Rt. Hon. Sir Herbert Samuel, G.C.B., G.B.E., M.P. *Practical Ethics.* London: Thornton Butterworth Ltd. 1935. Pp. 256. 2s. 6d.

Sir A. Eddington, D.Sc., LL.D., F.R.S. *New Pathways in Science.* London: Cambridge University Press. 1935. Pp. x + 333. 10s. 6d.

Sir W. Mitchell, K.C.M.G. *The Quality of Life* (Annual Philosophical Lecture, H. Hertz Trust, 1934.) London: Humphrey Milford. 1935. Pp. 36. 2s.

R. Verrier. *Roberty: Le Positivisme Russe et la Fondation de la Sociologie.* Paris: Librairie Félix Alcan. 1934. Pp. 233. Frs. 18.

M. Blondel, *La Pensée.* Tome II. *Les Résponsabilités de la Pensée et la Possibilité de son Achèvement.* Paris: Librairie Félix Alcan. 1934. Pp. 558. Frs. 60.

D. Draghicesco. *Vérité et Révélation.* Tome II. *Vers une Nouvelle Idée de Dieu.* Paris: Librairie Félix Alcan. 1934. Pp. 493–1050. Frs. 40.

L. Lévy-Bruhl. *La Mythologie Primitive. Le Monde Mythique des Australiens et des Papous.* Paris: Librairie Félix Alcan. 1935. Pp. xlvii + 335. Frs. 40.

R. Descartes. *Lettres sur la Morale. Correspondence avec la Princess Elisabeth, Chanut et la Reine Christine.* Texte revu et présenté par J. Chevalier. Paris: Boivin et Cie. Pp. xxviii + 333. Frs. 30.

P. Fauré-Fremiet. *Pensée et Re-création.* Paris: Librairie Félix Alcan. 1934. Pp. xii + 131. Frs. 12.

K. Popper. *Logik der Forschung zur Erkenntnistheorie der Modernen Naturwissenschaft.* Wien: Julius Springer. 1935. Pp. vi + 248. RM. 13.50.

R. Metz. *Die Philosophophischen Stromungen der Gegenwart in Grossbritannien.* Erster band. Leipzig: Felix Meiner. 1935. Pp. xv + 442. RM. 15 and RM. 18.

H. Reichenbach. *Wahrscheinlichkeitslehre.* Leiden: A. W. Sijthoff's Uitgeversmaatschappij N.V. 1935. Pp. ix + 451. Brosch: 11.50 H.fl. Leinen: 13.50 H.fl.

F. Orestano. *Verità Dimostrate. Saggi di Filosofia Critica.* Napoli: Rondinella Alfredo. 1934. Pp. 221. L.15.

A. Covotti. *I Presocratici.* Napoli: Rondinella Alfredo. 1934. Pp. 325. L.30.

Opera hactenus inedita Rogeri Baconi Fasc. XII. Questiones Supra Librum de Causis Nunc Primum Edidit Robert Steele. Collaborante, F. M. Delorme, O.F.M. Accedit Liber de Causis a R. Steele denuo recognitus. Oxford: Clarendon Press. London: Humphrey Milford. 1935. Pp. xxiv + 194. 17s. 6d.

CORRESPONDENCE

To the Editor of *Philosophy*

My Dear Editor,

In Professor G. C. Field's review of my *Platonic Legend*, in the January *Philosophy*, there appears, as the first of his illustrations of "Professor Fite's methods," the following:

> He is determined not to admit that Plato in the *Republic* really contemplated the possibility of any one born in the industrial class being promoted to the ranks of the guardians, or vice versa. Though it is clearly asserted in the myth of the gold, silver, iron, and brass races, he argues that that, being a myth, is obviously not meant to be true.

Permit me then to state the facts. All that I have to say about this "parable of the metals" is contained within a single section (§ 5) of three pages. Nowhere is it even suggested that because Plato puts his meaning into the form of a pleasant tale, the tale is intended to deceive. What I do say—say very plainly, and not merely "argue"—is that Plato himself tells us that the tale is intended to deceive—and this I say in the following passage on page 29, which the reviewer has ignored:

> This "parable of the metals," as Jowett calls it, is very commonly cited as conclusive evidence that the underlying motive of the *Republic* is democratic justice. Plato himself is careful to inform us (414b), in tones frankly cynical, that it is only one of his many pious lies, pious fictions, "opportune falsehoods" (*mechanê tôn pseudôn en deonti gignomenôn*) [the passage should include a second *tôn* after *pseudôn*]—the opportune falsehood being defined by Professor Shorey in a footnote to his translation as an "ingenious device employed by a superior intelligence to circumvent necessity or play providence with the vulgar."

Warner Fite.

Princeton, N.J.,
U.S.A.
February 9, 1935.

REPLY

My Dear Editor,

I am far from clear what Professor Fite's exact grounds of complaint are. I have re-read the relevant passages in his book and my own review, and I cannot see that I have misrepresented his argument in any important respect. Of course, a summary cannot be the same thing as the full text, but I could hardly be expected to quote several pages of the book in a review.

I cannot see that Professor Fite's present letter strengthens his position in any way. His statement that "Plato himself tells us that the tale is intended to deceive" seems to me a most misleading half-truth. I should have thought it fairly obvious that here, as elsewhere in his use of myth, Plato regarded the literal details as fiction but the general principles of conduct that they suggested as absolutely true. If there is even a possibility of this view being right, it is plain that it is absolutely unwarranted to infer from Plato's general description of the myth as untrue that he meant to deceive people on the specific point of the possibility of promotion from one class to another.

G. C. Field.

University of Bristol,
February 28, 1935.

CORRESPONDENCE

To the Editor of *Philosophy*

My Dear Editor,

In the January number of *Philosophy* there appears a review of Haserot's *Essays* by L. Susan Stebbing. We wish to take exception to this review on particular and general grounds. Irrespective of the fact that Haserot's book may or may not be an important contribution to philosophy (although we believe it is), we think that nothing is gained and a good deal lost by the kind of carping criticism which singles out subsidiary points and deliberately overlooks the main argument. Professor Stebbing criticizes some of the terms in which Mr. Haserot expresses his philosophy, but of the philosophy itself she says nothing. Implicit in this review is the affectation of a lack of comprehension, which is at once supercilious and pedantic. Surely Professor Stebbing knows the meaning of the term "reference." If such terms must all be exactly defined, there would be an infinite regress of definition.

The important point at issue, however, is not this particular review but the unfortunately common practice of passing over intention and criticizing execution. If execution must be technically perfect before intention can be understood, then there never would be any lasting philosophy. The writings of Plato, Aristotle, Kant, Hegel, Locke, *et al.*, contain many undefined terms, contradictions, and vagaries; yet the importance of their work has succeeded in transcending these peccancies. Unfortunately for the readers of *Philosophy* who have not seen Mr. Haserot's book, they will be unable to form any judgment about the work as a whole because from Professor Stebbing's review they will have learned nothing of it.

Very truly yours,

James Feibleman.
Julius W. Friend.

305 Baronne Street,
New Orleans, Louisiana,
January 28, 1935.

REPLY

My Dear Editor,

Thank you for sending me the letter of Mr. Feibleman and Mr. Friend concerning my review of Mr. Haserot's *Essays on the Logic of Being*.

It is well that reviewers should sometimes themselves be reviewed in order to correct the not uncommon misapprehension that a person, by the mere fact of becoming a reviewer, is an infallible guide to the merits or demerits of the book reviewed. Mr. Feibleman and Mr. Friend wish to make both a general and a particular complaint about my review of Mr. Haserot's book. With regard to the general complaint, I agree that 'carping criticism' is not helpful, but I cannot admit that my criticism was carping nor that I singled out 'subsidiary points' or overlooked the main argument. I hold strongly that the first duty of a reviewer is to give the readers sufficient indication of what the book is about to enable them to decide whether or not the book is likely to be of interest to them. To do this ought not to be beyond the competence of anyone who undertakes the review. I submit that both in what I said and from the quotations I gave I provided ample indication as to what the reader might expect from Mr. Haserot's book. When, however, the reviewer passes to an evaluation of the book's merits, the comments made must result from a personal standpoint. Hence it is important to bear in mind the fallibility of the reviewer.

I came to the reading of Mr. Haserot's book with great enthusiasm. I happen to be much interested in the theory of communication, and I was eager to learn what I could. I was disappointed. Mr. Feibleman and Mr. Friend are mistaken in attributing to me an 'affectation of a lack of comprehension.' The remarks immediately following this charge suggest that they have not at all understood what I tried to say. I must admit that I am not at all clear when I myself use the word "reference" in the context "the reference of language." In my review I stressed the difficulty of giving a clear account of *reference*: I meant exactly what I said. It was surely reasonable to complain of Mr. Haserot's failure even to see that there was a difficulty —a failure shared by Mr. Feibleman and Mr. Friend. But in Mr. Haserot's case this

failure is serious, seeing that his account of *truth* depends upon *meaning*, and his account of *meaning* depends upon the notion of *reference*. I gave quotations to show that this is so, and I must ask the reader to consult my review on this point.

I do not think that a book is worthless unless it is "technically perfect," and I hope that I shall continue to learn from 'the writings of Plato, Aristotle, Kant, Hegel, Locke, *et al.*' I am surprised that anything in my review should have given an impression to the contrary.

I am,
Yours faithfully,
L. SUSAN STEBBING.

BEDFORD COLLEGE,
February 28, 1935.

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INSTITUTE NOTES

DURING the past term Professor W. G. de Burgh has delivered a very interesting course of lectures on "Humanism and Value," and at the moment of going to press the Rt. Hon. The Earl of Listowel is beginning a course of lectures on "The Fundamental Problems of Aesthetics."

Members are asked to take notice that the course of lectures entitled "The Impacts of Reality Upon Mind," announced for the Summer Term, has been postponed until a subsequent Session.

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